PB86-210671

Background Document - Final Rule Closure/Post-Closure and Financial Responsibility Requirements, Hazardous Waste Treatment, Storage, and Disposal Facilities

(U.S.) Environmental Protection Agency
Washington, DC

Apr 86

U.S. Department of Commerce
National Technical Information Service
NTIS

50272-101

REPORT DOCUMENTATION PAGE

1. REPORT NO. EPA/530-SW-86-009

2.

3. Recipient's Accession No. PB86 210671/AS

4. Title and Subtitle BACKGROUND DOCUMENT - FINAL RULE
Closure/Post-Closure and Financial Responsibility Requirements
Hazardous Waste Treatment, Storage, and Disposal Facilities

5. Report Date Date of issue
April 1986

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address
U.S. Environmental Protection Agency
Office of Solid Waste
401 M Street, S.W.
Washington, D.C. 20460

10. Project/Task/Work Unit No. N/A

11. Contract(C) or Grant(G) No.
(C)
(G) N/A

12. Sponsoring Organization Name and Address
U.S. Environmental Protection Agency
Office of Solid Waste
401 M Street, S.W., Washington, D.C. 20460

13. Type of Report & Period Covered FINAL

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This background document supports the final rulemaking for the amendments to closure, post-closure care, and financial responsibility regulations applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities. These regulations were promulgated on May 2, 1986 (51 FR 16422). The document describes the public comments received by EPA concerning the proposed amendments and EPA's responses. The document also summarizes and contrasts, section by section, the previous regulation, the March 19, 1985 proposed rule, and the final rule adopted by EPA.

17. Document Analysis a. Descriptors

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement Release Unlimited

19. Security Class (This Report) Unclassified

20. Security Class (This Page) Unclassified

21. No. of Pages 216

22. Price

(See ANSI-Z39.18) See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

United States
Environmental Protection
Agency

Office of Solid Waste
and Emergency Response
Washington DC 20460

EPA 530-SW-86-009
April 1986

PB86-210671

Solid Waste

EPA

Background Document - Final Rule

Closure/Post-closure and Financial Responsibility Requirements

Hazardous Waste Treatment, Storage, and Disposal Facilities

RCRA

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

EPA/530-SW-86-009

BACKGROUND DOCUMENT - FINAL RULE

CLOSURE, POST-CLOSURE CARE, AND FINANCIAL RESPONSIBILITY REQUIREMENTS

Hazardous Waste Treatment, Storage, and Disposal Facilities

U.S. Environmental Protection Agency
Office of Solid Waste

April 1986

BACKGROUND DOCUMENT - FINAL RULE

CLOSURE, POST-CLOSURE, AND FINANCIAL RESPONSIBILITY REQUIREMENTS

Hazardous Waste Treatment, Storage, and Disposal Facilities

Table of Contents

Page

FOREWORD 6

I. BACKGROUND 7

- A. Regulatory History 7
- B. Atlantic Cement Company Incorporated (ACCI) Litigation and Settlement 8
- C. Subparts G and H Implementation Experience 12
- D. Hazardous and Solid Waste Amendments of 1984 (HSWA) 13

II. DEFINITIONS (PART 260) 15

- A. Active Life (§260.10) 15
- B. Hazardous Waste Management Unit (§260.10)...... 18
- C. Partial Closure (§260.10) 23
- D. Final Closure (§260.10) 27

III. STANDARDS FOR PERMITTED FACILITIES (PART 264) AND CONFORMING CHANGES TO INTERIM STATUS STANDARDS (PART 265) CLOSURE AND POST-CLOSURE CARE (SUBPART G) 29

- A. Closure Performance Standard §§264.111 and 265.111 29
- B. Requirement to Furnish Closure and Post-Closure Plans to Regional Administrator §§264.112(a), 265.112(a), 264.118(c), 265.118(b) 36

Table of Contents (continued)

Page

C. Clarification of Contents of Closure Plan §§264.112(b), and 265.112(b) 40

D. Description of Removal or Decontamination of Facility Structures and Soils in Closure Plan §§264.112(b)(4) and 265.112(b)(4) 47

E. Requirement to Estimate the Expected Year of Closure §§264.112(b)(7) and 265.112(b)(7) 50

F. Amendments to Closure and Post-Closure Plans §§264.112(c), 265.112(c), 264.118(d), 265.118(d) 55

G. Notification of Partial Closure and Final Closure §§264.112(d) and 265.112(d) 66

H. Removal of Wastes and Decontamination or Dismantling of Equipment §§264.112(e) and 265.112(e) 76

I. Time Allowed for Closure §§264.113 and 265.113 81

J. Disposal or Decontamination of Equipment, Structures, and Soils §§264.114 and 265.114 96

K. Certification of Closure §§264.115 and 265.115 99

L. Survey Plat §§264.116 and 265.116 109

M. Post-Closure Care and Use of Property §§264.117 and 265.117 113

N. Post-Closure Plan §§264.118(b) and (c), 265.118(a) and (c) 121

O. Post-Closure Notices §§264.119 and 265.119 124

Table of Contents (continued)

Page

P. Certification of Completion of Post-Closure Care §§264.120 and 265.120 135

IV. STANDARDS FOR PERMITTING FACILITIES (PART 264) AND CONFORMING CHANGES TO INTERIM STATUS STANDARDS (PART 265)
FINANCIAL ASSURANCE REQUIREMENTS (SUBPART H) 142

A. Cost Estimates for Closure and Post-Closure Care §§264.142(a), 265.142(a), 264.144(a), 265.144(a) 142

B. Anniversary Date for Updating Cost Estimates for Inflation §§264.142(b), 265.142(b), 264.144(b), 265.144(b) 149

C. Revisions to the Cost Estimates §§264.142(c), 264.144(c), 265.142(c), 265.144(c) 153

D. Closure and Post-Closure Cost Estimates §§264.142(c), 264.144(c), 265.142(c), 265.144(c) 156

E. Trust Fund Pay-In Period §§264.143(a)(3) and 265.143(a)(3) 158

F. Reimbursements for Closure and Post-Closure Expenditures from Trust Funds and Insurance §§264.143(a)(10) and (e)(5), 264.145(a)(11) and (e)(5), 265.143(a)(10) and (d)(5), 265.145(a)(11) and (d)(5)) 162

G. Final Administrative Order Required §§264.143(b)(4)(ii), 264.145(b)(4)(ii), 265.143(b)(4)(ii), 265.145(b)(4)(ii) 168

Table of Contents (continued)

Page

H. Final Administrative Determination Required §§264.143(c)(5) and (d)(8), 264.145(c)(5) and (d)(9), 265.143(c)(8), 265.145(c)(9)) 171

I. Cost Estimates for Owners or Operators Using the Financial Test or Corporate Guarantee Must Include UIC Cost Estimates for Class I Wells §§264.143(f)(1), 264.145(f)(1), 265.143(e)(1), 265.145(e)(1) 173

J. Cost Estimates Must Account for All Facilities Covered by the Financial Test or Corporate Guarantee §§264.143(f)(2), 265.143(e)(2), 264.145(f)(2), 265.145(e)(2) 177

K. Release of Owner or Operator from the Requirements of Financial Assurance for Closure and Post-Closure Care §§264.143(i), 265.143(h), 264.145(i), 265.145(h) 178

L. Period of Liability Coverage §§264.147(e) and 265.147(e) 180

M. Wording of Instruments §264.151 184

V. .INTERIM STATUS STANDARDS (PART 265) 188

A. Applicability of Requirements §264.110 188

B. Waste Pile Closure Requirements Included by Reference in the Closure Performance Standard §§265.111 and 265.112 190

Table of Contents (continued)

Page

C. Submission of Interim Status Closure and Post-Closure Plans (Notification of Closure) §§265.112(d) and 265.118(e) 192

D. Written Statement by Regional Administrator of Reasons for Refusing to Approve or Reasons for Modifying Closure or Post-Closure Plan §§265.112(d) and 265.118(f) 198

VI. PERMITTING STANDARDS (PART 270) 201

A. Contents of Part B: General Requirements §270.14(b)(14) 201

B. Contents of Part B: General Requirements §§270.14(b)(15) and (16) 202

C. Minor Modifications of Permits §270.42(d) 204

D. Changes During Interim Status §270.72(d) 207

VII. EFFECTIVE DATES 212

VIII. REFERENCES 214

FOREWORD

This background document accompanies the final rule for amendments to the closure and post-closure care (Subpart G) and financial responsibility (Subpart H) requirements applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities (TSDFs) (40 CFR Parts 264 and 265) and conforming amendments to the definitions and the permitting rules (40 CFR Parts 260 and 270). These regulations are promulgated under the Resource Conservation and Recovery Act.

This document describes the public comments received by EPA concerning the proposed amendments and sets forth EPA's responses.

The document is divided into eight parts. Part I presents the background of the rulemaking proceeding. Parts II through VI describe the public comments and EPA's responses. For each section of the regulation that is amended the following information is presented: (1) synopsis of the previous regulation; (2) a summary of the March 19, 1985, proposed rule; (3) the rationale for amending the regulation; (4) a summary of the public comments with EPA's analysis and response; and (5) a summary of the final rule adopted by EPA. Part VII addresses effective dates and Part VIII lists references.

Because many of the requirements for interim status facilities (Part 265) parallel those for permitted facilities (Part 264), only those changes to Part 265 requirements that differ from the Part 264 requirements are addressed independently in Part V.

I. BACKGROUND

I.A Regulatory History

The Resource Conservation and Recovery Act (RCRA) creates a comprehensive system of regulation of hazardous waste. Subtitle C of RCRA creates a "cradle-to-grave" management system for hazardous waste. Section 3004 of Subtitle C requires the Administrator of the Environmental Protection Agency (EPA) to establish standards for hazardous waste treatment, storage, or disposal facilities (TSDFs) as may be necessary to protect human health and the environment.

EPA has issued several sets of regulations under the authority of Subtitle C. This background document concerns regulations for closure and post-closure care (Subpart G) and financial assurance (Subpart H) for permitted facilities (Part 264) and interim status facilities (Part 265) of Title 40 of the Code of Federal Regulations. On May 19, 1980, EPA promulgated Part 265, Subpart G regulations in 45 FR 33242 specifying general standards for closure and post-closure care of interim status TSDFs. Financial responsibility requirements for closure and post-closure care and liability coverage (Subpart H) of interim status facilities were proposed on that date in 45 FR 33260. On January 12, 1981, EPA added Subparts G and H rules to Part 264 in 46 FR 2849. EPA also made limited changes to Subpart G Part 265 on January 12, 1981, in response to public comments, in 46 FR 2875. Subpart H requirements (Parts 264 and 265) were subsequently amended in 47 FR 15047 (April 7, 1982) and 47 FR 16554 (April 16, 1982).

On March 19, 1985, (50 FR 11068) in initiating the rule-making that is the subject of this background document, EPA proposed to amend Parts 260, 264, 265, and 270 of the existing RCRA regulations. Part 260 of 40 CFR includes definitions that apply to all other parts of the regulations. Part 264 provides standards for owners and operators of TSDFs that have been issued RCRA permits. Part 265 provides interim status standards for owners and operators of TSDFs. Part 270 establishes permitting requirements for TSDFs.

The public comment period for the rule proposed on March 19, 1985, extended from March 19 to May 20, 1985. No public hearing was held on the proposed rule. A number of comments were received and they are included in the Public Docket. EPA is now adopting these regulations as a final rule after considering and, at times, incorporating modifications suggested by the public comments.

I.B Atlantic Cement Company Incorporated (ACCI) Litigation and Settlement

The regulations proposed on March 19, 1985, were in part an outcome of a legal settlement submitted to the United States Court of Appeals for the District of Columbia Circuit on August 16, 1984. This settlement was the result of a case that began shortly after EPA promulgated the January 12, 1981, regulations. Individual companies and trade associations filed 17 separate lawsuits challenging several portions of those regulations. The cases were consolidated in American Iron and

Steel Institute v. U.S. Environment Protection Agency (D.C. Cir., No. 81-1357 and Consolidated Cases).

On September 8, 1981, the petitioners presented to EPA a consolidated statement of 42 issues, which established the subject matter of negotiations between EPA and petitioners. Of the 42 issues, 24 pertained to Subparts G and H regulations. Many of the issues pertaining to Subpart H regulations were rendered moot by subsequent EPA regulatory action, including amendments to the financial assurance requirements (47 FR 15032, April 7, 1982, and 47 FR 16544, April 16, 1982).

On August 16, 1984, the parties (with the exception of several parties who voluntarily dismissed their lawsuits) filed a settlement agreement with the Court. The American Iron and Steel Institute voluntarily dismissed its lawsuit rather than join in the settlement; thus, the case has been renamed Atlantic Cement Company Incorporated v. U.S. Environmental Protection Agency ("ACCI Litigation") (D.C. Cir., No. 81-1387 and Consolidated Cases). The following litigants signed the settlement agreement: Atlantic Cement Company, Inc.; American Mining Congress; Fertilizer Institute; National Agricultural Chemical Association; The Babcock and Wilcox Company; Edison Electric Institute; American Paper Institute; National Forest Products Association; AMAX, Inc.; Kimberly-Clark Corporation; American Wood Preservers Institute; American Petroleum Institute; Chemical Manufacturers' Association; Association of Metropolitan Sewerage Agencies; Ford Motor Company; National

Solid Wastes Management Association; U.S. Environmental Protection Agency; and U.S. Department of Justice.

The settlement agreement stipulated that EPA would prepare proposed amendments to Subparts G and H that addressed the following issues:

Subpart G

- §§264.112(a), 265.112(a), 264.118(a), and 265.118(a). Amend requirement to allow owners or operators to maintain their closure and post-closure plans at a location other than the facility.
- §264.112(a)(4). Amend requirement to estimate the expected year of closure.
- §§264.112(c) and 265.112(c). Amend deadlines for notifying the Regional Administrator of closure.
- §§265.112(d) and 265.118(d). Amend to require the Regional Administrator to send the owner or operator a detailed statement of reasons for disapproving or modifying a closure or post-closure plan.
- §§264.112, 265.112. Add (e) to allow owners or operators to remove wastes and to decontaminate or dismantle equipment at any time before or after notification of closure.
- §265.113. Amend (a) to allow completion of handling of hazardous wastes 90 days after approval of the closure plan, if that is later than receipt of the final volume of hazardous wastes. Amend (b) to allow completion of closure activities 180 days after approval of the closure plan, if that is later than receipt of the final volume of wastes. Allow the Regional Administrator to approve a longer closure period. Amend (c) to require submission of applications for extensions of the closure period at least 30 days prior to expiration of the 90-day deadline or the 180-day deadline or within 90 days of the effective date of this regulation, whichever is later.
- §§264.113(a)(1)(ii) and (b); and (b)(1)(ii) and (2); and 265.113(a)(1)(ii) and (2); and (b)(1)(ii) and (2). Amend to allow a variance to the closure deadlines if the owner or operator will recommence operations and (1) the facility has the capacity to receive additional wastes, (2) there is a reasonable

likelihood that operations will recommence within one year, (3) closure would be incompatible with continued operation of the site, and (4) the facility is being operated in compliance with permit requirements.

- §§264.115 and 265.115. Amend to drop requirement that the closure certification be performed by an independent registered professional engineer.

Subpart H

- §§264.143(i) and 265.143(h). Amend to require that the Regional Administrator provide the owner or operator a written explanation of reasons for refusal to release the owner or operator from financial responsibility requirements if he has reason to believe that closure was not in accordance with the plan.

- §§264.145(i) and 265.145(h). Amend to require the Regional Administrator to notify the owner or operator of his release from post-closure care financial responsibility obligations in writing, at the request of the owner or operator. Amend to require the Regional Administrator to provide the owner or operator with a written explanation of reasons for refusal to release the owner or operator, if applicable.

- §§264.143(a)(10) and 265.143(a)(10). Amend to require the Regional Administrator to instruct the trustee within 60 days after a request for reimbursement to reimburse persons for closure expenses or to provide a written explanation of why reimbursement is refused.

- §§264.145(a)(11) and 265.145(a)(11). Amend to require the Regional Administrator to instruct the trustee within 60 days after a request for reimbursement to reimburse persons for post-closure expenses or to provide a written explanation of why reimbursement is refused.

- §§264.143(b)(4)(ii), 264.145(b)(4)(ii), 265.143(b)(4)(ii), and 265.145(b)(4)(ii). Amend to require the standby trust fund to be funded to an amount equal to the penal sum within 15 days after an order to begin closure issued by the Regional Administrator becomes final or after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction.

- §§264.143(c)(5) and (d)(8), 264.145(c)(5) and (d)(9), 265.143(c)(8), and 265.145(c)(9). Amend by removing the word "determination" and inserting, in its place, the words "final determination."

EPA agreed to submit to the Office of Management and Budget ("OMB") proposed closure and post-closure care regulatory amendments within five months after filing the settlement agreement with the Court and to request that OMB expedite its review of the regulations. EPA also agreed to transmit the amendments to the Federal Register for publication within ten days after completion of OMB review and to provide a public comment period not to exceed 60 days for the proposed regulations.

The development of the final rule following the March 19, 1985, proposal also was guided in part by the terms of the ACCI settlement agreement. EPA agreed to submit the appropriate final closure and post-closure care regulations to OMB within four months after the close of the public comment period and to request that OMB expedite its review of these regulations. Therefore, the development, review, analysis, and promulgation of this rule has been subject to strict time limits.

I.C Subparts G and H Implementation Experience

Since January 12, 1981, EPA and authorized States have gained considerable experience with the implementation of Subparts G and H. Telephone surveys, compliance analyses, and Regional implementation reviews have identified issues concerning the implementation of Subparts G and H. Based on this experience, EPA is making additional changes to the Subparts G and H regulations and provisions in Parts 260 and 270. The following are among the implementation issues being addressed in this rulemaking:

- The definitions of active life, hazardous waste management unit, partial closure, and final closure;
- The closure performance standard;
- Applicability of the closure requirements to partial closures;
- Clarification of the content of plans and cost estimates;
- Clarification of procedures for amending plans;
- Soil decontamination;
- Estimation of year of closure;
- Determination of final receipt of hazardous waste;
- Timing for submitting survey plats and deed notices;
- Scope and timing of post-closure care activities;
- Post-closure care certification;
- Procedures for developing and revising cost estimates; and
- Conditions for transfer of ownership of TSDFs.

I.D Hazardous and Solid Waste Amendments of 1984 (HSWA)

On July 15, 1985, EPA published in the Federal Register (50 FR 28702) final rules implementing provisions included in the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereafter referred to as the "codification rule"). Some of the final amending the Subparts G and H regulations have been promulgated to conform to HSWA and to the requirements of the codification rule.

II. DEFINITIONS (PART 260)

II.A Active Life
§260.10

II.A.1 Synopsis of Previous Regulation

"Active life" was not formally defined in the definition section (§260.10). However, §§264.112(b) and 265.112(b) defined "active life" of a facility as "that period during which wastes are periodically received."

II.A.2 Summary of Proposed Rule

The Agency proposed to delete the existing definition of "active life" from §§264.112(b) and 265.112(b) and place a new definition of "active life" in §260.10. The proposal defined "active life" as "the period from the initial receipt of hazardous waste at the facility until the Regional Administrator receives certification of final closure."

II.A.3 Rationale for Proposed Rule

Under the previous regulations it was unclear whether activities required to be undertaken during the active life of the facility should be carried out during the closure period, when wastes were not being received. Section 264.90(c) specified that owners or operators must comply with the Subpart F ground-water monitoring requirements "during the active life of the regulated unit (including the closure period)." Similarly, §§264.221(a), 264.251(a), and 264.301(a) specified that liners for surface impoundments, waste piles, and landfills must prevent the migration of wastes during "the active life (including the closure period)." However, "active life" was not defined in other sections of the regulations, including parallel sections in Part 265.

In order to clarify that "active life" includes the closure period, even if hazardous waste is not received during that period, EPA proposed a definition of "active life" in §260.10 that gives the term the same meaning whenever it is used in Parts 260 through 265. The definition clarifies that activities such as ground-water monitoring, run-on and run-off control, and leachate collection must be continued through the closure period. Similarly, closure cost estimates must include all activities that are required during the closure period as well as those activities conducted to shut down operations.

II.A.4 Comments and Responses

Two commenters agreed with the new definition of active life. Two other commenters criticized the proposed definition for the following reasons.

II.A.4.1 Proposed Definition Is Too Broad

- The definition is too broad and is inconsistent with the common understanding of the words. Instead, EPA should specifically identify the regulations that apply during the closure period.

The Agency believes that the definition is sufficiently specific to identify the required activities and the period of their applicability. In general, all activities required prior to closure, such as ground-water monitoring, will remain effective through the closure period. The definition is consistent with the normal meaning of the words "active" and "closed," and also is consistent with the definitions in Part 260 of "active portion" -- "that portion of a facility where treatment, storage, or disposal operations are being or have been conducted ... and which is not a closed portion" -- and of "closed portion" -- "that portion of a facility which an owner or operator has closed ..." (emphasis added). The rule is intended to ensure that there cannot be a gap in ground-water monitoring or other similar activities between the beginning of closure and the beginning of post-closure care.

II.A.4.2 Applicability of Requirements During Closure

- Monitoring and security practices are already included in most closure plans, and an owner or operator may unavoidably fall out of compliance due to infeasibility in performing activities, such as inspections, if a hazardous waste management unit is defined as active throughout closure. "Active life" should be defined as ending when closure begins.

The purpose of the definition is to ensure that necessary monitoring and inspections are continued throughout the closure period. It is not the Agency's intent to impose burdensome or unnecessary requirements on owners or operators or to cause facilities to have compliance problems due to paperwork. The previous regulations already make clear that certain activities must continue throughout the closure period. For example, §§264.73 and 265.73 already require the owner or operator to maintain the operating record "until closure of the facility." Furthermore, properly conducted closure activities should not make it infeasible to continue necessary environmental protection activities such as ground-water monitoring and leachate collection. Inspections during the closure period are particularly important to ensure that closure is being carried out correctly. EPA, therefore, does not agree that the proposed rule is unnecessary or undesirable, or that the actions it requires are infeasible.

II.A.5 Final Rule

Having analyzed the comments, the Agency has decided to adopt the definition of "active life" as proposed.

II.B Hazardous Waste Management Unit. §260.10

II.B.1 Synopsis of Previous Regulation

The term "hazardous waste management unit" was not defined in the previous Subpart G regulations. Similarly, although §260.10 defined partial closure as closure of a "discrete portion" of a facility, the previous rule did not define "discrete portion." Although "unit" had not been formally defined, "unit" was described in the preamble to the July 26, 1982, regulations (47 FR 32289) as a contiguous area of land on or in which waste is placed, and the largest area in which there is a significant likelihood of mixing waste constituents in the same area.

II.B.2 Summary of Proposed Rule

The proposed rule defined "hazardous waste management unit" as the "smallest area of land on or in which hazardous waste is placed, or the smallest structure on or in which hazardous waste is placed, that isolates hazardous waste within a facility." The proposed rule listed the following examples of hazardous waste management units: "a tank system, a surface impoundment, a waste pile, a land treatment unit, a landfill cell, an incinerator, and container areas."

II.B.3 Rationale for Proposed Rule

Because the proposed rule required explicitly that closure regulations apply to partial closures as well as final closures, EPA also proposed to define a new term -- "hazardous waste management unit" -- to clarify the concept of partial closure. The Agency intended with this proposal to incorporate into the regulations the substance of the definition of unit as discussed in the preamble to the July 26, 1982, regulations. The proposed definition for "hazardous waste management unit" also was intended to expand the term to include tank systems and container storage areas (i.e., the containers and the land or pad on which they are placed, but not individual containers).

II.B.4 Comments and Responses

Two commenters agreed with the new definition. Several other commenters suggested the following changes, which have been divided into three categories.

II.B.4.1 Proposed Definition is Ambiguous

- "Hazardous waste management facility" and "hazardous waste management unit" need to have more coherent principles backing their definitions and those definitions need to be consistently applicable for both commercial and non-commercial facilities.
- Subsections of a landfill cell should not be subject to the "unit" definition.
- It would not be environmentally safe to require separate closure of sub-sections of a landfill cell, since it would be impossible to apply the closure and post-closure requirements to the sub-cells of a defined landfill cell.

The Agency agrees that the proposed definition should be clarified to avoid ambiguities and misapplications of the regulations. The definition should be more consistent with the definition of unit in the July 26, 1982, preamble and with the discussion in the preamble to the codification rule (50 FR 28702, July 15, 1985). The July 15, 1985, rule codified RCRA Section 3015 (Section 202 of HSWA), which requires owners or operators of waste piles, landfills, and surface impoundments operating under interim status to meet minimum technological requirements. These requirements apply to new units, replacements of existing units, and any lateral expansion of an existing unit. The legislative history of HSWA indicates that Congress intended "unit" to be defined as in the preamble to the July 26, 1982, regulation and as further defined by EPA.

The Agency also agrees that the distinction between landfill cells and cell subsections was not made adequately clear in the proposed rule. It is not the Agency's intent to define subsections of a landfill cell as hazardous waste management units. The proposed definition has been reworded to define a hazardous waste management unit as a "contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area." This definition is consistent with the codification rule.

II.B.4.2 Subdivisions of Container Storage Areas

- A storage pad or area within a single contiguous spill contaminant barrier of a storage facility should be regarded as a hazardous waste management unit.

Although the Agency believes that the proposed definition addressed the issue of subdivisions of large storage areas, the definition has been revised to be more specific. EPA does not intend for a single container to qualify as a hazardous waste management unit. Storage containers together with their underlying pads, however, are intended to qualify as hazardous waste management units. The proposed definition has been changed to reflect this intent by specifying that, "a container alone does not consitutute a unit; the unit includes containers and the land or pad upon which they are placed."

II.B.4.3 Use of Word "Isolates"

- Use of the word "isolates" in the proposed definition allows for ambiguities as to what types of facilities would be bound by the closure requirements. EPA should list the particular types of units it would consider hazardous waste management units.

The Agency agrees that the word "isolates" in the proposed definition allowed for varied interpretations and, contrary to the Agency's intent, does not help to specify the meaning of the definition. The proposed definition has been changed in response to this comment to refer instead to "the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area."

EPA also agrees that listing the particular types of units considered to be hazardous waste management units clarifies the definition. A list was provided in the proposed rule, and a similar list is included in the final rule. The list, however, is intended to be illustrative, and is not intended to specify comprehensively all types of units that are considered to be hazardous waste management units.

II.B.5 Final Rule

Having analyzed the comments, the Agency has decided to redefine the term "hazardous waste management unit" so that it is less ambiguous and more consistent with the definitions in the July 26, 1982, preamble and the codification rule. In addition, the definition includes a list illustrating the Agency's understanding of the term. "Hazardous waste management unit" is now defined as:

> "a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage

area. A container alone does not constitute a unit; the unit includes containers and the land or pad which they are placed."

II.C Partial Closure
§260.10

II.C.1 Synopsis of Previous Regulation

Partial closure previously was defined in §260.10 as "the closure of a discrete part of a facility in accordance with the applicable closure requirements of Parts 264 or 265 of this chapter." Examples of partial closure listed in the previous regulation included: "closure of a trench, a unit operation, a landfill cell, or a pit, while other parts of the same facility continue in operation or will be placed in operation in the future."

II.C.2 Summary of Proposed Rule

The proposed rule incorporated the term "hazardous waste management unit" into the definition of partial closure. The proposed rule defined "partial closure" as "the closure of a hazardous waste management unit at a facility that contains other active hazardous waste management units ...." The proposed rule also expanded the definition to include additional examples: "partial closure may include the closure of a tank system, landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate."

II.C.3 Rationale for Proposed Rule

To minimize exposure to hazardous wastes and the associated risks to human health and the environment, the Agency generally encourages owners or operators to close portions of facilities that are no longer in operation. At the same time, however, the Agency considers it essential that any portion of a facility, whenever closed, be closed in accordance with all Subpart G and associated technical standards. By clarifying the concept of partial closure, the Agency intended to allow closing portions of a facility, while ensuring the closure was environmentally safe.

II.C.4 Comments and Responses

II.C.4.1 Need for Partial Closures

- Allowing partial closure is a distinct improvement in the regulations because, with the difficulty involved in obtaining a land disposal permit, an owner or operator may elect to close the land disposal unit and obtain a final permit for treatment or storage units at the facility.

The Agency believes that the previous regulation also recognized the possibility of partial closures. For example, the previous definition of partial closure identified closure of a trench, pit, or landfill cell in accordance with the standards established in Subpart G as a partial closure. The intent of this amendment is to clarify what parts of a facility may qualify for partial closure. The final rule expands the definition of partial closure to clarify that closure of a hazardous waste management unit at a facility with other units still operating is a partial closure. Closure of the last hazardous waste management unit at a facility constitutes final closure.

II.C.4.2 Interim Steps vs. Partial Closure

- Partial closure of a landfill should have provisions for interim stages for each cell closure. For example, a final closure plan for a single impervious cap over a cluster of cells should allow for closure of individual cells with caps designed to protect against waste migration for the remaining active life until the designed final closure cover is applied. This would protect the environment during the active life and allow for more final closure design options.

If a working cover were used during the operating life of the facility, this cover would probably be included in the closure plan as part of the design for partial or final closure. However, the Agency did not intend for partial closure to include the use of interim or working covers as the technical design for the partial closure. Such a cover would not satisfy the closure performance standard of Subpart G. A partial closure, like a final closure, must satisfy all the relevant standards in Subpart G.

II.C.4.3 Partial Closure of Tank Systems

- The definition of "partial closure" includes a "tank system" which may be interconnected by piping. Closure of only a single tank should constitute partial closure. Entire tankfarms are usually interconnected through a piping manifold. The entire tankfarm would have to be closed to trigger the plans review process. "Interconnectedness" is difficult to verify by field personnel, even with instrumentation or drawings. Single tank locations are easy to verify.

The Agency does not agree that the definition of partial closure would require an entire tank farm to be closed. The final rule has been amended to clarify that partial closure can include "the closure of a tank (including its associated piping and underlying containment systems)" (emphasis supplied). Thus, the final rule applies to a "tank system." The use of "associated" to describe the piping is meant to limit the cleanup of piping to that reasonably connected to the tank. At final closure, of course, all piping must be decontaminated.

II.C.4.4 Relationship of Partial Closure to Final Closure

- Some non-commercial facilities see a closure plan as a series of partial closures with no final closure.

Under the proposed and final rules, partial closure requires at least one hazardous waste management unit at the facility to remain open. The definition of "final closure," in contrast, refers to the closure of the last hazardous waste management unit at the facility. If an on-site generator continuously keeps at least one hazardous waste management unit in operation, then final closure will not have occurred. The Agency does not anticipate, however, that any hazardous waste management facility will remain in perpetual operation. For example, permits are limited to ten year terms, and permits for land disposal facilities may be reviewed after five years. Available capacity for disposal activities will ultimately be exhausted. In other cases, the owner or operator for some other reason will cease operations. Therefore, at some point final closure will occur.

II.C.5 Final Rule

After analyzing the comments received on the proposed definition of partial closure, the Agency has decided to adopt the definition substantially as proposed, with one change. In the list of the examples, "tank system" has been replaced with "tank (including its associated piping and underlying containment systems)."

II.D Final Closure
§260.10

II.D.1 Synopsis of Previous Regulation

The previous regulation did not define final closure or distinguish between partial closure and final closure.

II.D.2 Summary of Proposed Rule

In the proposed rule "final closure" was defined as "closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under Parts 264 and 265 of this chapter are no longer conducted at the facility unless subject to the provisions in §264.34." Under this definition, closure of the last hazardous waste management unit(s) of a facility constitutes final closure.

II.D.3 Rationale for Proposed Rule

The definition of final closure was proposed to clarify the distinction between partial and final closure, in light of the accompanying amendments to 40 CFR Parts 260, 264, and 265 defining "partial closure" and establishing standards for partial closures.

II.D.4 Comments and Responses

No comments were received concerning this amendment.

II.D.5 Final Rule

The Agency adopted the definition of "final closure" as proposed with one exception. The final rule correctly references §262.34 instead of §264.34.

III. STANDARDS FOR PERMITTED FACILITIES (PART 264) AND CONFORMING CHANGES TO INTERIM STATUS STANDARDS (PART 265) CLOSURE AND POST-CLOSURE CARE (SUBPART G)

III.A Closure Performance Standard
§§264.111 and 265.111

III.A.1 Synopsis of Previous Regulation

Sections 264.111 and 265.111 previously established general closure performance standards applicable to all TSDFs. The standards specified that a facility was required to be closed "in a manner that: (a) Minimizes the need for further maintenance, and (b) Controls, minimizes or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere." (emphasis added) (The language in §265.111 differed slightly specifying "to the extent necessary to protect human health and the environment ...") (emphasis added).

III.A.2 Summary of Proposed Rule

The Agency proposed to amend §§264.111 and 265.111 in three ways. First, the proposal expanded the performance standard to include by reference the specific closure standards for containers, tanks, surface impoundments, waste piles, land treatment units, landfills, and incinerators included in 40 CFR §§264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, and the parallel interim status provisions in Part 265.

Second, the Agency proposed to amend the language in §265.111 to parallel that in §264.111. Third, the proposed rules contained three changes to the wording of the regulation, replacing (1) "hazardous waste constituents" with "hazardous constituents," (2) "contaminated rainfall" with "contaminated runoff," and (3) "waste decomposition products" with "hazardous waste decomposition products."

III.A.3 Rationale for Proposed Rule

The Agency proposed to incorporate references to the specific technical closure requirements to ensure that the general closure performance standard in §§264.111 and 265.111 is not interpreted improperly as more or less stringent than the process-specific standards. The proposed rule explicitly required owners or operators of TSDFs to comply with both the general closure performance standard and the applicable process-specific standards.

Although the language in §§264.111 and 265.111 of the previous regulations differed slightly, the Agency interpreted both sections to have the same meaning. For the sake of clarity and consistency, the Agency proposed to amend §265.111 to read identically to §264.111.

The other changes to the wording in §§264.111 and 265.111 were also intended to increase clarity and to conform to Congressional intent. The previous regulation referred to the control, minimization, or elimination of waste decomposition products. The change to hazardous waste decomposition products was intended to clarify that the Subpart G standards apply only to hazardous wastes and constituents. The previous regulation also specified that closure must control, minimize, or eliminate the post-closure escape of contaminated rainfall. To clarify that EPA intended the requirement to apply more broadly than to rainfall alone, the Agency proposed to replace the phrase "contaminated rainfall" with "contaminated runoff." "Hazardous waste constituents" was changed to "hazardous constituents" to show that the usage was intended to be broader than the definition given in §260.10. This change is consistent with Congressional usage in HSWA (see III.A.4.1 below).

III.A.4 Comments and Responses

Commenters generally supported the clarifications in the proposed rule. Some commenters suggested changes to the proposal as discussed in the four sections that follow.

III.A.4.1 Hazardous Waste Constituents vs. Hazardous Constituents

- The wording of the closure performance standard should not be changed from "hazardous waste constituents" to "hazardous constituents." The differences between "hazardous waste constituents" (listed hazardous wastes) and "hazardous constituents" (Appendix VIII constituents) are significant and the change would have significant economic impacts. If the Agency intends to make such a significant change, then the background data, justification and rationale for the new approach should be published and addressed in a separate rulemaking, subject to public review and comments.

In proposing to amend §§264.111(b) and 265.111(b) to require that closure address hazardous constituents rather than only hazardous waste constituents, the Agency addressed an ongoing environmental concern about the distinction between hazardous waste constituents and hazardous constituents. "Hazardous waste constituent" is defined in §260.10 as "a constituent that caused the Administrator to list the hazardous waste in Part 261, Subpart D, of this chapter, or a constituent listed in Table 1 of §261.24 of this chapter." Hazardous waste constituents are therefore a limited number of hazardous constituents that are included in Appendix VII or are characterized as EP toxic. Hazardous constituents, in contrast, include all constituents of concern to the Agency, although not necessarily the basis for listing. Appendix VIII includes a list of hazardous constituents of concern to the Agency.

The Agency is amending the closure performance standard to address the broader category of hazardous constituents for a number of reasons. First, the hazardous waste constituents identified in Appendix VII are not intended to provide an exhaustive list of all hazardous constituents; rather, this list represents some of the primary constituents of waste streams that cause a waste to be listed. Therefore, requiring an owner or operator to address only hazardous waste constituents (i.e., the set of constituents included either in Appendix VII or classified as EP toxic wastes) could result in other hazardous constituents remaining at closure. For example, wastes that are hazardous only because they exhibit hazardous characteristics as specified by Part 261 Subpart C are not hazardous waste constituents and would not have been subject to the previous closure performance standard. Because the impacts of hazardous constituents on the environment are no less serious than those of hazardous waste constituents, the Agency proposed to revise the closure performance standard to ensure that all contamination is adequately addressed at closure.

Second, the change in the language makes the closure performance standard consistent with other RCRA regulations. For example, the Part 264 Subpart F ground-water protection standards require the owner or operator to monitor for hazardous constituents included in Appendix VIII and to institute corrective action whenever any hazardous constituents exceed the specified ground-water protection standards. (See 40 CFR 264.98.)

Third, the revised language is consistent with the provisions of HSWA. Section 206 of HSWA (RCRA Section 3004(u)) specifies explicitly that owners or operators must conduct "corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit ..." (emphasis added). Congress explained that the purpose of the provision in HSWA was to require facilities to "take all appropriate action to control and cleanup all releases of hazardous constituents from all solid waste management units ..." (emphasis added).[1] Similarly, Section 222 of HSWA requires EPA to "consider factors (including additional constituents) other than those for which the waste was listed..." Thus, Congress has itself expressed a concern for hazardous constituents, and this revision is consistent with legislative intent.

III.A.4.2 Include Removal of Sludges in Performance Standard

- The closure performance standard should be further amended to include a new paragraph clarifying that removal of sludges and contaminated soils may be necessary to meet the performance standard.

The Agency agrees that removal of sludges and contaminated soils may be necessary to comply with the closure performance standard. This requirement is addressed in the proposed amendments to §§264.114 and 265.114.

III.A.4.3 Protect vs. Prevent

- The wording change from "protect human health and the environment" to "prevent threats to human health and the environment" is difficult to support at face value. Both phrases lack clarity to allow projecting what steps will be necessary to meet the closure performance standard; the word "prevent" appears to drive to a non-cost effective solution. A risk assessment approach accounting for site-specific aspects would be more appropriate and should be encouraged.

The Agency has reconsidered the language in Parts 264 and 265 and now believes that the standard in §265.111 -- "protect human health and the environment" -- should be retained and the language in §264.111 should be changed to conform to it. The language in the performance standard in the Part 265 interim status regulations is the standard that is established in RCRA itself.

---

[1] Conference Report, Hazardous and Solid Waste Amendments of 1984, U.S. House of Representatives, October 3, 1984, p. 92.

III.A.4.4 Use of the Word "Minimize"

- The word "minimize" should be deleted from the performance standard. No case exists in which merely minimizing runoff from a hazardous waste site would be acceptable.

By using the word "minimize" in the performance standard, the Agency intended to increase the flexibility of the standard while still incorporating facility-specific requirements. In certain circumstances it may not be possible to eliminate completely all contaminated runoff from the facility; yet in some of those cases, minimizing runoff would be sufficient to protect human health and the environment.

III.A.5 Final Rule

After analyzing the comments, the Agency recognizes that conforming the standard in §264.111 to that in §265.111 is more appropriate. Therefore, the final rule amends §264.111 to replace the phrase "prevent threats to human health and the environment" with "protect human health and the environment." A technical correction was made to delete the reference to §265.178 from the proposed §265.111(c) because §265.178 does not contain process-specific standards. The balance of the proposed rule was adopted as the final rule.

III.B Requirement to Furnish Closure and Post-Closure Plans to the Regional Administrator

§§264.112(a), 264.118(c), 265.112(a), 265.118(b)

III.B.1 Synopsis of Previous Regulation

Sections 264.112(a), 264.118(a), 265.112(a), and 265.118(a) previously required the owner or operator of a TSDF to keep a copy of the most recent closure and post-closure plans and all revisions at the facility until closure was completed and certified. Post-closure plans were required to be retained at the facility until the post-closure care period began.

III.B.2 Summary of Proposed Rule

The Agency proposed to drop the requirement that the closure and post-closure plans be kept at the facility and to require instead that such plans be furnished to the Regional Administrator upon request, including request by mail. In addition, the plan would be required to be provided during site inspections, on the day of inspection.

III.B.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that a hazardous waste management facility may not be properly equipped to maintain files and safeguard closure and post-closure plans and that the plans could be kept more efficiently and safely at the owner's or operator's nearby offices. EPA, however, was concerned that the plans be available on-site to an inspector on the day of inspection, in order to ensure that the plan is consistent with facility conditions. This provision was consistent with the requirements on the availability of records established in §§264.74 and 265.74.

III.B.4 Comments and Responses

A few commenters generally supported the proposal to drop the requirement that closure and post-closure plans be kept at the facility and to instead require that plans be furnished upon request and be provided during site inspections. More specific comments addressing the proposal are discussed in the following three sections.

III.B.4.1 Requiring Plans to be On-Site is Duplicative

- For permitted facilities, the Agency already has on file a copy of the closure and post-closure plans and requiring an additional copy is duplicative and unnecessary.
- All closure plans submitted in conjunction with a Part B permit or upon request will be on file with the Agency. Once a plan is on file, the operator should not be required to make the plan available on request or on the day of inspection.

The Agency agrees that for facilities with approved closure and post-closure plans on file, it is not necessary to make them available on the day of inspection. For those interim status facilities without approved plans, however, it is important that the plans be available on the day of inspection.

III.B.4.2 Need for Plans On-Site for Inspections

- If the proposal is adopted, some corporations may decide to keep the closure plans at an office a far distance from the facility. This would make unannounced inspections difficult. The proposal should therefore be amended to require plans to be kept at the facility during closure.

The Agency does not agree that allowing the closure plan to be maintained at a location other than the facility will make unannounced inspections difficult. In the case of an interim status facility without an approved plan, the Agency agrees that it should be available on the day of inspection. The final rule makes this requirement explicit for interim status facilities. Even in the event of an unannounced inspection, the plan must be available at the facility. Therefore, an owner or operator or an interim status facility must take into account the time it will take to deliver the plan to the facility when determining where to maintain the plan.

For permitted facilities or interim status facilities with approved plans, as discussed above in Section III.B.4.1, the Agency does not consider it necessary to require the plans to be at the facility. Because the Agency must have the most recent plan (including approved plan modifications) on file, an inspector already will have the documents necessary for reference.

III.B.4.3 Emergency Response Plans Should Be Kept On-Site

- Because the closure plan contains pertinent sections for daily operation and emergency response requirements, these sections, at a minimum, should be kept on-site.

Although closure plans may address daily operation and emergency response, those activities are also subject to explicit requirements in Parts 264 and 265 Subparts B, C, and D. In particular, the following reports and records must be maintained at the facility at all times: waste analysis plans (§§264.13 and 265.13); facility operating record (§§264.73 and 265.73); facility inspection schedules (§§264.15 and 265.15); description of personnel training program (§§264.16 and 265.16); and contingency plans outlining emergency procedures and arrangements with local police, fire, and emergency response teams (§§264.50 _et_ _seq_.; 265.50 _et_ _seq_.). The location of the closure plan will not affect the availability of these other plans and procedures.

III.B.5 Final Rule

After analyzing the comments received on the proposal to require owners or operators to furnish plans to the Regional Administrator upon request and make them available on the day of inspection, the Agency revised the proposed rule. The final rule specifies in §§264.112(a), 264.118(c), 265.112(a), and 265.118(b)) that until final closure is completed and properly certified, the most current plans must be furnished to the Regional Administrator upon request, including request by mail. In addition, for interim status facilities without approved plans, §§265.112(a) and 265.118(b) require the owner or operator to also furnish the plans during site inspections, on the day of inspection, to any officer, employee or representative of the Agency who is duly designated by the Administrator.

III.C Clarification of Contents of Closure Plan §§264.112(b), 265.112(b)

III.C.1 Synopsis of Previous Regulation

Sections 264.112(a) and 265.112(a) had specified that the closure plan was required to describe how and when a facility would be partially closed, if applicable, and finally closed. The regulations did not specify the level of detail required in the closure plan.

III.C.2 Summary of Proposed Rule

The Agency proposed to clarify the types of information that should be included in the closure plan. First, the proposed rule required the owner or operator to include in the plan a detailed description of the procedures that would be used during partial closures as well as final closure.

Second, the proposed rule elaborated on the level of detail to be included in the closure plan. For example, the plan must describe procedures to be used to handle inventory at partial and final closure including methods of removing, treating, transporting, and disposing of wastes. In addition, the plan must address the activities necessary to shut down operations and to ensure that partial and final closures satisfy the closure performance standards. Because these activities could include ground-water monitoring, leachate collection, and run-on and run-off control, the Agency proposed to add the requirement in §§264.112(b)(5) and 265.112(b)(5) that the plan describe all such environmental protection activities (e.g., ground-water monitoring, leachate collection), that are applicable.

III.C.3 Rationale for Proposed Rule

The closure plan is the mechanism for ensuring that an owner or operator has made adequate preparations for closing a hazardous waste management unit or a facility in a manner that will protect human health and the environment. Partial closure activities are as important as final closure for ensuring long-term protection of human health and the environment. Therefore, it is important that the closure plan address in detail how partial closure or final closure will satisfy the Subpart G and the process-specific regulations. The proposed amendments to §§264.112(b) and 265.112(b) therefore required that the closure plan must address explicitly all partial as well as final closure activities.

The increased level of detail in the plans enables the Agency to evaluate the adequacy of the plans. Furthermore, the closure plan is the basis of the closure cost estimate, which in turn is the basis for the financial assurance mechanism.

Implementation experience has shown that poorly detailed plans are accompanied by inadequate cost estimates. The Agency believes that requiring detailed closure plans will help ensure that the cost estimate is accurate, and therefore that the financial assurance mechanism is adequate.

III.C.4 Comments and Responses

A number of commenters criticized the proposed rule. Other commenters recommended alternatives or limited changes. Still other commenters suggested that even more extensive detail should be required in the closure plans.

III.C.4.1 Level of Detail Required

- The current level of detail required in closure plans is more than adequate for estimating closure costs.
- The proposed amendments require excessive amounts of detail in closure plans for facilities that will remain open for another 20 to 30 years.

The Agency does not agree that requiring an owner or operator to include in the plan a detailed description of the procedures that will be used to remove, transport, treat, or dispose of hazardous waste is unnecessary. One of EPA's goals in regulating owners and operators of TSDFs is to ensure that owners provide adequate financial assurance for closure of TSDFs. The Agency considers highly detailed closure plans essential for accurately estimating costs of closure. Because the level of financial assurance is based upon the cost estimate, it is crucial that the Agency be able to evaluate the adequacy of the plans and cost estimates. Furthermore, financial assurance must be established immediately, even if the facility is expected to remain open for 20 to 30 years.

In the past, existing closure plans sometimes did not provide sufficient detail for a thorough evaluation. For example, the Agency has received closure plans only two or three pages in length, that the owner or operator believed were adequate to satisfy the previous regulation. An Agency survey of 200 TSDFs revealed that no facility had a completely adequate plan and none had accounted for all the necessary cost components in the cost estimates.[2] Similarly, reviews of selected State hazardous waste management activities revealed a low level of compliance with requirements for preparing closure and post-closure plans and cost estimates.[3] The detailed requirements in the final rule are intended to ensure that satisfactory plans are prepared.

---

[2] Survey of Compliance with Closure and Post-Closure Care Plan and Cost Estimate Regulations, (Draft Report), June 10, 1983, ICF Incorporated.

[3] Inspection, Enforcement, and Permitting Activities at New Jersey and Tennessee Hazardous Waste Facilities, GAO/RCED-84-7, June 22, 1984, Report to the Chairman, Subcommittee on Commerce, Transportation and Tourism; Committee on Energy and Commerce; House of Representatives, U.S. General Accounting Office. Interim Report on Inspection, Enforcement, and Permitting Activities at Hazardous Waste Facilities, GAO/RCED-83-241, September 21, 1983. 19 pages. Report to the Chairman, Subcommittee on Commerce, Transportation and Tourism; Committee on Energy and Commerce; House of Representatives, U.S. General Accounting Office.

III.C.4.2 Difficulties in Revising Detailed Plans

- An owner or operator may be locked into a detailed closure plan that may be difficult if not impossible to alter as a result of proposals to classify changes to the plans as permit modifications and to prohibit changes to the plan after notification of closure.
- Updating detailed closure plans will be costly, and it is likely that updates will be required frequently due to advances in technology and changes in regulations.

Although detailed plans will require owners and operators to describe the technology they intend to employ, the intent of the requirement is not to lock owners or operators into using outmoded technologies, but rather to ensure that the amount of financial assurance reflects the cost of the technologies chosen. The Agency considers it unlikely that significant technological changes will occur that would require owners or operators to revise their plans frequently. The types of changes that would require a revision to the closure plan, such as changes in the facility design, changes in the cover design, or a shift from off-site to on-site management of wastes at closure, are unlikely to occur frequently at the same facility. Furthermore, the Agency does not expect or intend that an owner or operator will revise the plan for insignificant changes, such as substitution of one off-site facility or contractor used to install the final cover for another, when such changes do not affect the costs of closure.

III.C.4.3 Limitations on the Need for Detailed Plans

- An alternative to the proposed amendments is applying the detailed closure requirements only to hazardous waste management units that are expected to close during the life of the permit.
- During a facility's active life, individual attributes of each facility as well as technological advances will focus attention on those areas where closure and post-closure care must be modified to ensure protection of health and the environment. The details of these protective measures will likely be site-specific and vary significantly over the life of a facility. The current level of detail required in the regulation is appropriate. Plans should be updated, with appropriate implementation detail, 90 days to one year before forecasted closure.

The Agency does not agree that the scope of the requirement should be limited either to a specific time before closure or to a specific set of facilities. Postponing the preparation of a detailed closure plan until closure is imminent could allow facilities without adequate financial assurance to escape scrutiny. If a facility owner or operator was to file for bankruptcy before a detailed closure plan was prepared, the level of financial assurance based on a less adequate closure plan could no longer be adjusted and adequate funds might not be available for proper closure of the facility. A similar problem is associated with the argument that detailed plans should be prepared and submitted only for those hazardous waste management units at the facility scheduled to close during the life of the permit rather than for the entire facility. In that situation, if an owner or operator filed for bankruptcy the Agency could only be certain that adequate financial assurance was available for those units scheduled to close; cost estimates for the remainder of the facility would be based on a general closure plan.

III.C.4.4 Additional Details in the Closure Plan

A number of commenters supported including additional detail in closure plans, although some noted that updating more detailed plans could be more expensive than updating plans requiring less detail. One commenter particularly supported the inclusion of a requirement to address contamination from hazardous waste storage tanks, based on his state's experience with that type of hazardous waste storage unit. Other commenters made the following points:

- EPA should require additional detail to determine a "clean" level for both soil and ground water for closure.
- The rule should require: a determination of vertical and horizontal extent of soil contamination prior to any excavation; a requirement that monitoring wells be installed if soil contamination is detected below the water table; and guidelines for estimating potential or probable contamination caused by operation of hazardous waste management units.
- The plan should provide a set of construction specifications, because such detail is necessary to arrive at an accurate cost estimate.

Although the EPA is focusing much attention on the question explicitly or implicitly posed by these commenters--how clean is clean?--it was not the Agency's intent to address this issue directly in this rulemaking. The Agency does agree that a closure plan that includes construction specifications would provide the basis for accurate cost estimates and in some cases may be necessary; in most cases, however, somewhat less detail will be satisfactory.

III.C.5 Final Rule

The Agency has decided to adopt the rule as proposed.

III.D Description of Removal or Decontamination of Facility Structures and Soils in Closure Plan

§§264.112(b)(4), 265.112(b)(4)

III.D.1 Synopsis of Previous Regulation

Sections 264.112(a)(3) and 265.112(a)(3) previously required owners or operators to include a description of the steps needed to decontaminate facility equipment at closure.

III.D.2 Summary of Proposed Rule

The proposed amendment expanded the previous provision to require that the closure plan also include a description of steps to decontaminate or remove contaminated facility structures and soils.

III.D.3 Rationale for Proposed Rule

The previous Subpart G regulations explicitly required the closure plan to address decontamination only of facility equipment. Even the best-run facility may have some drips or spills, that may contaminate the soil, as part of routine operations. Although soil cleanup is implicitly required as part of the closure performance standard, the Agency proposed to require explicitly in §§264.112(b)(4) and 265.112(b)(4) that the closure plan address procedures for decontaminating facility soils and structures as well as equipment.

Because responsible owners and operators will clean up drips and spills associated with hazardous waste management activities as part of routine operations, many of the activities described in the closure plan for removing or decontaminating soils should be similar to those conducted during the operating life of the facility. For some types of facilities, however, such as tanks or container storage facilities, soil testing may not be a routine activity. For these types of facilities in particular it is important that the plan describe in detail the decontamination procedures that will be used at closure. Therefore, the Agency proposed §§264.112(b)(4) and 265.112(b)(4) to specify that the plan must include a discussion of methods for decontaminating the facility structures, containment systems, and soils in a manner that satisfies the closure performance standard. The description must include (but not be limited to) sampling and testing procedures and criteria for evaluating contamination levels.

III.D.4 Comments and Responses

One commenter favored the proposal because it appears to allow owners or operators flexibility in designing cost-effective cleanups based on site-specific needs. Other commenters requested additional clarification concerning the scope and intent of the proposed rule.

III.D.4.1 Clarification Needed

- The Agency should clarify the term "containment system."
- Use of the word "all" is more inclusive than EPA likely intended (e.g., a leachate collection and monitoring system would be considered contaminated, subject to removal or decontamination). EPA needs to amend the language to specify that closure plan descriptions of removal and decontamination do not apply to containment system components, equipment and structures integral to the design, integrity and post-closure management of the site.
- The preamble to the proposed rule states that the requirement includes contamination resulting from process residues, drips, spills, and deposition of emissions. We believe that the RCRA closure and post-closure requirements apply only to contamination which occurs as a result of hazardous waste treatment, storage, or disposal. Releases from process areas, product storage tanks, and inactive solid waste disposal areas may be subject to corrective action under CERCLA or under Section 206 of HSWA. These areas should not be included in closure and post-closure plans, because the areas would not have been subject to interim status or a Part B permit.

EPA did not intend the rule to be interpreted as strictly as the commenters suggest. EPA intends §§264.112(b)(4) and 265.112(b)(4) to be understood reasonably in conjunction with all of Subpart G and the associated process-specific closure requirements. Thus, an owner or operator is not expected to remove structures that need to be maintained and used after closure.

The Agency agrees that the plan must address soil contamination only from hazardous waste management operations and does not intend the requirements to extend beyond RCRA jurisdiction.

III.D.5 Final Rule

The Agency is adopting the rule as proposed.

III.E Requirement to Estimate the Expected Year of Closure §§264.112(b)(7) and 265.112(b)(7)

III.E.1 Synopsis of Previous Regulation

Section 264.112(a)(4) previously required each owner or operator of a permitted TSDF to include an estimate of the expected year of closure in the closure plan.

III.E.2 Summary of Proposed Rule

The Agency proposed to amend the regulation to require an expected year of closure only for: (1) owners or operators of permitted facilities who use trust funds to establish financial assurance under §264.143 and whose facilities are expected to close prior to permit expiration; (2) for owners or operators of interim status facilities that do not have approved plans; and (3) for owners or operators of interim status facilities who use trust funds and whose remaining operating life is less than 20 years.

III.E.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that estimating the expected year of closure is unnecessarily burdensome for owners or operators of on-site TSDFs, such as storage and treatment facilities associated with industrial processes. For these types of facilities, predicting the date of closure may be difficult because closure of the hazardous waste facility is likely to be determined by the primary industrial activity with which the facility is associated. In the case of owners or operators using a trust fund to provide financial assurance, however, an estimate of the expected year of closure is necessary to enable both the owners or operators and EPA to determine whether appropriate payments are being made into the trust fund.

Having the expected year of closure in these plans will provide the Agency with valuable information. Knowing the expected year of closure will help the Agency schedule review of closure plans and anticipate closures. Knowing the expected year of closure will also aid inspectors while conducting site visits.

For interim status facilities using trust funds, including the expected year of closure in the closure plan is important, particularly if the remaining operating life is less than twenty years. If the expected operating life of the facility is shortened, payments into the trust fund must be increased.

The Agency recognizes that many interim status facilities will not have approved closure plans prior to closure and, as a result, the Agency will not know the expected year of closure. The closure plan must be furnished to the Regional Administrator upon request, and provided during on-site inspections. Therefore, the Agency will have an opportunity to look at the plan during inspections and verify that the expected date of closure is consistent with facility operations. For example, if an inspection reveals that the expected date of closure is imminent, the Agency may wish to schedule additional inspections and verify the adequacy of the cost estimates and financial assurance.

III.E.4 Comments and Responses

Some commenters supported the proposal to require only owners or operators who use trust funds to estimate the expected year of closure in the written closure plan. However, a number of commenters recommended changes to the proposed rule.

III.E.4.1 Difficulty Estimating Year of Closure

- The proposed amendment requiring an estimate of a specific year of closure should be dropped. Instead, an estimated general time period of closure should be required (e.g., "within six months after the receipt of final waste for any hazardous waste management unit").
- Estimation of closure should relate to the permit cycle or to the permit review cycle. Estimation of year of closure otherwise may be difficult due to new technology, economic climate, alternative treatment, etc.
- The requirement to estimate the expected year of closure should apply only to facilities that use a trust fund to demonstrate financial responsibility, and not to all interim status facilities without approved closure plans. Most

> estimates of a closure date for on-site treatment or storage facilities would be unrealistic, since the closure date is likely dependent on the continued operation or cessation of the associated industrial process. This same reasoning applies to every interim status facility, regardless of whether the closure plan has been "approved."

The purpose of the proposed rule was to eliminate unnecessary and burdensome requirements. However, the Agency still believes it is necessary to retain the requirement to include an estimate of the expected year of closure in the closure plan for those owners or operators using a trust fund.

Under the provisions of §§264.143(a)(3) and 264.145(a)(3), an owner or operator using a trust fund to demonstrate financial assurance for a permitted facility must make payments annually over the term of the RCRA permit or over the remaining operating life of the facility as indicated in the closure plan, whichever period is shorter. Allowing the trust fund payments to be based on the permit life could result in an underfunded trust fund, if the facility closes earlier than the end of the permit life.

The proposed regulation also specifically addressed the case of facilities that use trust funds "and that are expected to close prior to permit expiration". If an owner or operator decides to close prior to the termination of the permit, the owner or operator must revise the estimated year of closure in the closure plan.

Similarly, for interim status facilities under §§265.143(a)(3) and 265.145(a)(3), the trust fund pay-in period is 20 years or the remaining life of the facility, whichever is shorter. Although the Agency may not review closure plans in-depth until the final payment is issued, inspectors could verify that the closure date in the plan is consistent with the trust fund pay-in schedule. Therefore, an estimate of the expected year of closure must be included in the closure plan for those owners or operators using trust funds for financial assurance.

All interim status facilities were required to prepare closure plans by May 1981, including an estimated year of closure. Thus, most owners or operators should already have such an estimate for their facilities. The Agency does not agree that the owners or operators of facilities associated with production processes will always find it particularly difficult to estimate the expected year of closure. Usually, ordinary business planning should provide such an estimate. In the other situations, the owner or operator of the facility will be required to provide the best estimate that can be developed based on current knowledge about the facility.

III.E.5 Final Rule

After analyzing the comments received on the proposal to limit the requirements to estimate the expected year of closure to certain owners or operators, the Agency has decided to adopt the proposed rule.

III.F Amendments to Closure and Post-Closure Plans
§§264.112(c), 264.118(d), 265.112(c), 265.118(d)

III.F.1 Synopsis of Previous Regulation

Sections 264.112(b) and 265.112(b) previously allowed an owner or operator to amend the closure plan at any time during the active life of the facility. Active life was defined for purposes of §§264.112(b) and 265.112(b) as "that period during which wastes are periodically received." The owner or operator was required to amend the plan whenever changes in operating plans or facility design affected the closure plan, or whenever there was a change in the expected year of closure. Also an owner or operator was required to request a modification of the closure plan when requesting a permit modification to authorize a change in operating plans or facility design. Amendments to the closure plan were required to be made within 60 days after the change in plans or design occurred.

III.F.2 Summary of Proposed Rule

The Agency proposed to revise the requirement to clarify that closure plans may only be modified prior to notification of closure, or during closure if unexpected occurrences require a modification of the approved plan. The requirements concerning amendment of the closure plan were also moved to §§264.112(c) and 265.112(c). In addition, to be consistent with the proposed changes to §§264.112(b)(7) and 265.112(b)(7) discussed in the preceding section, only facilities required to include an expected year of closure in the closure plan were required to amend the closure plan for a change in the expected year of closure.

The Agency also proposed a number of procedural changes to the Parts 264 and 265 requirements for modifying closure and post-closure plans. The proposed §§264.112(c) and 264.118(e) clarified that an owner or operator of a permitted TSDF must follow the Part 270 permit modification procedures to request a change in the closure or post-closure plan. An owner or operator of a permitted facility or an interim status facility with an approved closure or post-closure plan was required to submit a written request to the Regional Administrator for approval of a closure or post-closure plan modification within 60 days prior to a change in facility design or operation, or within 60 days after an unexpected event had occurred that affected the plans. If an unexpected event that affected the closure plan occurred during partial or final closure, a request to modify the closure plan was required to be made within 30 days of that event.

III.F.3 Rationale for Proposed Rule

The previous regulations allowed the closure plans to be modified during the "active life" of the facility, which was defined as the period during which wastes were received. Because active life was formally defined in the proposal to include the closure period, §§264.112(c) and 265.112(c) were also proposed to limit modification of closure plans to the period prior to the notification of closure, whichever is later, unless an "unexpected event" occurs during the partial or final closure period. This is consistent with the intent of the previous rule.

The Agency previously considered approved plans to be incorporated into the permit conditions. To clarify this understanding, the Agency proposed to clarify in §§264.112(c) and 264.118(e) that an owner or operator of a permitted facility must use the procedural requirements of Part 270 to modify the closure or post-closure plan. Owners or operators of interim status facilities with approved plans were required by the proposed rule to submit a request to the Regional Administrator to amend the plan.

Finally, the Agency proposed deadlines for requesting plan modifications to ensure that all requests are made in a timely fashion and that the level of financial assurance is adjusted, if necessary.

III.F.4 Comments and Responses

III.F.4.1 Deadline for Acting Upon Request for Modifications

- EPA should establish a definite time period for Regional Administrators to act upon written requests for modifications. If, for example, after 60 days the Regional Administrator has not acted, the modification should be automatically approved.

The Agency believes that imposing a deadline on the Regional Administrator to act upon a request to modify a plan would undermine the Subpart G regulations. To ensure adequate protection of human health and the environment, the Regional

Administrator must review changes to plans. Therefore, the Agency does not agree that any plan modification should be approved automatically.

III.F.4.2 Modifications During the Closure Period

- The proposed rule would not allow changes to the plans after notification of closure unless unexpected events occur during the partial or final closure period. The exception for "unexpected occurrences" during closure should be broadened to include incorporation of optimum or superior closure methods identified after notification.
- Modifications to the closure plan during closure should only be required if the "unexpected event" adversely affects human health or the environment.
- If an "unexpected event" occurs during the closure period, closure activities should not be discontinued pending plan approval unless the proposed activities do not protect human health and the environment.

The Agency disagrees that the exception for "unexpected occurrences" should be broadened to include "optimum" or "superior closure methods." By the time the owner or operator notifies the Agency of impending closure, the owner or operator will have had sufficient opportunity to have identified and incorporated new or superior closure methods into the closure plan. The Agency supports use of the best available technology, but insists that it be implemented in a timely fashion and that closure be completed as soon as possible after notification. Finally, requiring the Regional Administrator to determine whether an alternative closure method is "optimum" potentially could delay closure.

The Agency disagrees with the commenter who argued that modifications to the closure plan during closure are necessary only if the "unexpected event" affects human health and the environment. The purpose of the closure plan is to describe the activities that will be conducted at closure in the event that a third party is required to conduct closure and to serve as a basis for cost estimates for financial responsibility. In addition, because the purpose of the closure certification is to ensure that closure has been performed in accordance with the approved closure plan, the plan should be modified to reflect the activities that are performed.

If an "unexpected event" that affects the closure plan occurs during closure, it is important that the revised plan be reviewed and approved to ensure that the new activities satisfy the closure performance standard. The Agency does not intend that all closure activities be discontinued pending approval of the revised closure plan. As long as the activities undertaken satisfy the closure performance standards, these activities will be subsequently approved. Only if the activities are later determined to be inconsistent with the closure performance standard will additional activities be required.

III.F.4.3 Contingent Plans for Interim Status Facilities

- Modifications to an approved plan should not be allowed when closure is actually in progress, unless unexpected events occur during closure which would require a change in the closure plan. However, some "unexpected" events during closure, such as the discovery of contaminated soil, could actually be anticipated for certain facilities, such as unlined or single-lined

> surface impoundments. Therefore the requirements for contingency plans should be extended to interim status facilities.

The Agency agrees that in some cases the owner or operator should be able to anticipate events such as the discovery of contaminated soil before the commencement of partial or final closure. The need for contingent closure plans for unlined interim status facilities in anticipation of extensive soil contamination, however, will be addressed in a separate regulatory package amending §§265.228(c) and 265.258(c).

The rule proposed on March 19, 1985, however, did require owners or operators of surface impoundments and waste piles required to close as landfills but not otherwise required to prepare contingent plans to revise their plans as soon as this determination was made. The Agency proposed in §§264.112(c), 264.118(e), 265.112(c), and 265.118(d) that owners or operators revise their closure and post-closure plans whenever changes in facility design or operation affect the plans. If an owner or operator or the Regional Administrator determines prior to closure that a surface impoundment or waste pile must be closed as a landfill, this would be considered a change in facility design or operation and would require a change in the closure plan within 60 days of the determination. Similarly, if this determination was made at the time of closure, the owner or operator would be required to revise the plan.

To clarify the applicability of the modification requirements and to make explicit that units or facilities closed as landfills must have post-closure plans, the final rule states explicitly in §§264.112(c)(3), 265.112(c)(2), 264.118(a), and 265.118(c) that an owner or operator of a surface impoundment or waste pile not otherwise required to prepare contingent closure and post-closure plans must amend the closure plan and prepare a post-closure plan if a determination is made that the surface impoundment or waste pile must be closed as a landfill. The closure plan must be amended within 60 days of the determination that the facility must be closed as a landfill, or within 30 days if the determination is made during closure. A post-closure plan must be prepared within 90 days of the determination. The Agency is granting owners or operators 90 days to prepare the post-closure plans to allow the additional time they may need to develop plans for post-closure care.

The Agency also now believes it is important to explicitly grant the Regional Administrator the authority to request modifications to the closure and post-closure plans. The final rule adds in §§264.112(c)(4), 265.112(c)(4), 264.118(d)(4) and 265.118(d)(4) that the Regional Administrator may request modifications to the closure or post-closure plan if a change has been made in facility design or operation or an "unexpected event" has occurred during closure that affects the plans. For example, if a facility inspection reveals extensive soil contamination at a storage surface impoundment that would preclude "clean closure," the Regional Administrator could request a modification to the closure plan and require that a post-closure care plan be submitted.

III.F.4.4 Modification Procedures

- The major modification procedure is too cumbersome for minor changes, such as a change in the type of off-site treatment to be used or development of an improved method of decontamination or removal, that are to be made just prior to or during closure. This unnecessarily delays modifications of closure plans and imposes an undue burden on owners or operators unless the Agency clearly specifies that such modifications are minor modifications.
- Changes in an estimated closure date should require notification to EPA, but should not be considered a major permit modification. Section 270.42 considers a change in the estimated closure date a minor modification.
- The requirement to submit a written request to amend the closure plan for a change in the expected year of closure is impractical and should be deleted.

The Agency agrees that a change in the expected date of closure is a minor permit modification under §270.42(g). For interim status facilities with approved plans, the final rule specifies that the public participation procedures of §§265.112(d) and 265.118(f) apply only if the change is a major modification according to the criteria in §§270.41 and 270.42. As part of a forthcoming rulemaking on permit modifications, EPA is intending to expand the definition of "minor" modifications.

The Agency disagrees that submitting a written request to amend the closure plan for a change in the expected year of closure is overly burdensome. First, only those owners or operators required to include the expected year of closure in the closure plan are required to submit written notice of any change in plans (see Section III.E of this document). Second, because a change in the estimated year of closure may affect the adequacy of the trust fund, the Agency considers it important that the owner or operator report any change in the expected date of closure. Finally, the Agency does not consider it likely that the expected year of closure will change frequently over the life of the facility, or that submitting a request for a modification is a costly requirement.

III.F.4.5 Public Participation

- If the owner or operator of an interim status facility has an approved closure plan and seeks to amend the plan, the opportunity for public comment will be discretionary under the proposed rule, regardless of the significance of the proposed modification. For permitted facilities, major modifications to closure plans require public notice unless the modification request is denied. The same procedure should be followed during interim status; substantial changes to approved closure plans must be subject to public review.
- As long as the final closure plan is consistent with the permit application, no further public hearings should be necessary. Significant changes, however, should be subject to a further public hearing.

The Agency agrees that the modification procedures for interim status facilities with approved closure and post-closure plans should be consistent with those for permitted facilities. Therefore, the final rule amends §§265.112(c) and 265.118(d) to specify that the criteria of §§270.41 and 270.42 must be used to determine if a change to the approved interim status closure or post-closure plan is a major or minor change. Major changes to the plans are subject to the public participation procedures of §§265.112(d)(4) and 265.118(f); minor changes are not subject to the public participation requirements. The Agency also agrees that if the closure plan has not been modified since the permit was issued or, for interim status facilities, since the plan was approved, no additional hearings are necessary.

III.F.5 Final Rule

The Agency promulgated the final rule with several changes. The proposed requirement remained that plans be modified prior to the notification of closure, or during closure if unexpected events occur during the closure period that affect the plans. In addition, the final rule added a provision that explicitly makes these requirements apply to surface impoundments and waste piles required to close as landfills but not otherwise required to prepare contingent plans. Owners or operators of such facilities are required by §§264.112(c) and 265.112(c) to amend their closure plans if the owner or operator or Regional Administrator determines that the unit must be closed as a landfill. In addition, §§264.118(a) and 265.118(c) require owners or operators to prepare post-closure plans within 90 days of the determination that the unit must be closed as a landfill.

The Agency also added a number of procedural changes to the Parts 264 and 265 regulations for modifying closure and post-closure plans. To be consistent with procedures for modifying plans for permitted facilities, §§265.112(c) and

265.118(d) have been added to specify that the criteria of §§270.41 and 270.42 must be used to determine if a change to the approved interim status closure plan is a "major" or a "minor" change. Major changes are subject to public participation. The final rule also clarified that the amended closure or post-closure plan must be submitted with the request for a permit modification under Part 270 or the request to amend an unapproved plan under Part 265.

Sections 264.112(c), 265.112(c), 264.118(d) and 265.118(d) have promulgated as proposed the deadlines for revising closure and post-closure plans. All owners or operators must revise their plans within 60 days prior to the proposed change, or within 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must revise the plans within 30 days of the unexpected event. The final rule added explicitly in §§264.112(c), 264.118(d), 265.112(c), and 265.118(d) that these deadlines also apply to owners or operators of surface impoundments and waste piles that have not prepared contingent plans, but must close as landfills. One exception is that these owners or operators have 90 days to prepare post-closure plans.

The final rule promulgated the procedures for revising plans substantially as proposed. Owners or operators of permitted facilities must submit their revised plans with a request for a permit modification in accordance with the procedures of Parts 124 and 270. Owners or operators of interim status facilities with approved plans must also submit their plans to the Regional Administrator for approval in accordance with the deadlines in §§265.112(d) and 265.118(f).

Finally, the Agency promulgated §§264.112(c)(4), 264.118(d)(4), 265.112(c)(4), and 265.118(d)(4) as proposed to allow the Regional Administrator to request modifications to the plans and to require that the owner or operator submit the modified plan within 60 days of the Regional Administrator's request, or within 30 days if the change in facility conditions occurs during partial or final closure.

III.G Notification of Partial Closure and Final Closure §§264.112(d) and 265.112(d)

III.G.1 Synopsis of Previous Regulation

Section 264.112(c) required owners or operators of TSDFs to notify the Regional Administrator "at least 180 days prior to the date he expects to begin closure." A comment to the regulation noted that the date when the owner or operator expects to begin closure "should be within 30 days after the date on which he expects to receive the final volume of wastes."

III.G.2 Summary of Proposed Rule

The proposed rule made four changes. First, it clarified that the notification requirements apply to partial closure of hazardous waste disposal units as well as final closure of an entire facility.

Second, it reduced the 180-day closure notification deadline for partial and final closure for all facilities, with the exception of partial or final closure of interim status land disposal units without approved closure plans. These reduced deadlines conformed to the provisions in the ACCI settlement agreement.

Third, the proposed rule defined "expected date of closure" as:

> "within 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste..."

Fourth, the proposed regulation allowed the expected date of closure to be later than one year after the unit received the most recent volume of hazardous waste for a tank or container storage facility if the owner or operator could demonstrate to the Regional Administrator that the hazardous waste management unit or facility had the capacity to receive additional hazardous wastes and that the owner or operator had taken and would continue to take all steps to prevent threats to human health and the environment.

III.G.3 Rationale for Proposed Rule

The Agency intends to ensure that partial closures as well as final closure are conducted in accordance with an approved closure plan. At the same time, the Agency agreed with the

ACCI petitioners that subjecting partial closures of non-land disposal facilities to notification requirements would be unnecessarily burdensome. Therefore, the Agency proposed to limit the notification requirement to partial and final closures of hazardous waste disposal units and final closure of non-disposal units. The Agency believed that for permitted facilities, and for interim status facilities with approved closure plans, it should be possible at the time of final closure to evaluate whether previous closures of non-disposal units have been in accordance with the approved plan. In the case of interim status facilities that do not have approved closure plans, the owner or operator would still be responsible for ensuring that all partial closure activities of incinerators, tanks, and container storage areas are consistent with the closure performance standard of §265.111, process-specific closure standards, and the subsequently approved closure plan.

The Agency agreed with the ACCI petitioners that the 180-day notification period was unreasonable for some types of facilities and longer than necessary for the Agency's purposes, particularly in the case of facilities with approved plans and interim status facilities with only container storage, tanks, or incinerator units. In accordance with the settlement agreement, the Agency proposed to reduce the 180-day notice period to 60 days for partial or final closure of a landfill, land treatment, surface impoundment, or waste site unit at a facility with a permit or with an approved closure plan under interim status. The notification requirement for final closure of a permitted or interim status facility with only container storage, tanks, or incinerator units remaining to be closed was reduced to 45 days. The proposal retained the 180-day notice period for partial and final closure of interim status land disposal units without approved plans.

The proposed rule also sought to clarify the meaning of the expected date of closure, by including a definition in the regulation. The proposed rule defined the date when the owner or operator "expects to begin closure" as within 30 days of the date on which any hazardous waste management unit receives the known final volume of hazardous wastes. If it is likely that the unit will receive additional hazardous wastes, then the expected date of closure may be defined as no later than one year after the date on which the unit received the most recent volume of hazardous wastes. To provide flexibility to long-term storage operations, the Agency proposed to allow tank and container storage facilities a one-year extension to the deadline, subject to their satisfying specified criteria.

III.G.4 Comments and Responses

The Agency received a large number of comments on the proposed amendments. A number of commenters disagreed with particular aspects of the proposal, either recommending that the deadlines for notification of closure be reduced or extended. Several commenters argued that final closure should not be required in all cases for facilities that have not received hazardous waste for one year.

III.G.4.1 Favoring or Disagreeing with Proposed Deadlines

- The proposed changes in deadlines for notification of closure should be adopted.
- The notice period for interim status tanks, container storage areas, and incinerators should not be reduced to 45 days. While the shut down of these activities may take less time than disposal units, ancillary tasks (e.g., evaluating soil contamination) will be as complex and take as long a time. Full opportunity for public notice and comment should be provided.
- Owners or operators should be required to notify the Agency of expected closures at least 90 days in advance of the starting date, regardless of the type of waste management unit.
- It is unnecessary and arbitrary to assign different notification dates for different types of facilities. Adequate notification for scheduling an inspection is a function of time and not a function of type of facility. A 45-day notification requirement should be adequate advance notice for scheduling inspections.

The Agency believes that notification 60 days prior to the date on which the owner or operator expects to begin closure of a permitted surface impoundment, waste pile, land treatment or landfill unit, or final closure of a permitted facility with such a unit, will be sufficient to allow the Agency to take any preliminary steps, such as a facility inspection, that may be necessary. Because the approved closure plan is a permit condition and all changes must be approved by the Regional Administrator, no more than 60 days should be necessary. Similarly, these deadlines should provide adequate notice for partial or final closure of an interim status facility with an approved closure plan. The Agency also believes that notification 45 days prior to the date on which the owner or operator expects to begin closure of a facility with only treatment or storage tanks, container storage, or incinerator units is sufficient. Closure is less complex and will not require as much advance notice. For interim status land disposal units without approved plans, the Agency remains convinced that a 180-day notice period is necessary to complete the review of plans, which are likely to be complex.

In the case of facilities with only tanks, container storage areas, or incinerators, the Agency recognizes that in some cases the proposed 45-day notice period may be insufficient to complete the review process, including public notice and comment and public hearings. However, the owner or operator will not be released from financial responsibility until the closure plan has been approved and closure has been certified in accordance with the approved plan. Therefore, if subsequent information from a public hearing indicates that the plan is inadequate, the owner or operator will be required to supplement the closure activities. This approach is consistent with the provisions of §265.112(e) that allow an owner or operator to remove wastes and decontaminate or dismantle equipment prior to notification of closure as long as these activities are consistent with the subsequently approved plan.

III.G.4.2 Identifying Final Volume of Waste

- Closure requirements should only be triggered when the owner or operator knows that a particular shipment is the final shipment. The language should be revised to read "after receiving the known final volume."

The final rule provides that the date when an owner or operator expects to begin closure must be either within 30 days after the date on which any hazardous waste management unit "receives the known final volume of hazardous wastes" or no later than one year after the date on which the unit received the most recent volume of hazardous waste. The requirement to determine the last date that waste was placed in a unit should not impose an unreasonable burden on owners or operators. The operating record required under §§264.73 and 265.73 specifically requires that a record be kept of the description, quantity, and dates of all hazardous wastes handled.

III.G.4.3 Removal of Waste Prior to Notification

- The proposed rule implies that there is no regulation preventing a facility from removing wastes prior to notification.

The purpose of the notification deadline is to ensure that the Agency has sufficient time to evaluate the closure plan, inspect the facility, and ensure that closure will prevent future threats to human health and the environment. This requirement is not intended to address the issue of removing wastes prior to notification. Removal of hazardous wastes and decontamination or dismantling of equipment is addressed in Section III-H concerning §§264.112(e) and 265.112(e). Those sections allow hazardous wastes to be removed before notification of closure.

III.G.4.4 Need for Flexible Deadlines

- If a facility is in compliance with all applicable requirements, there is no need for meeting a closure deadline related to the timing of receipt of volumes of wastes.
- The proposed notification deadline is too restrictive, especially for those facilities that generate or receive wastes only intermittently. More flexible requirements for notification should be applied.
- The "no later than one year after the date on which the unit received the most recent volume of hazardous waste ..." notification deadline for partial or final closure is an arbitrary and generalized requirement. Such conditions for partial or final closure should be flexibly applied on a waste-by-waste, facility-by-facility basis as part of the individual permit.
- Requiring closure within one year of the last receipt of waste is burdensome for those facilities that only infrequently generate hazardous wastes, but may need a storage area for longer than 90 days. Assuming no such occurrence within one year, the facility owner or operator would need to notify for closure or request a limited extension. On-site storage units, although used intermittently, should be excluded or else the one year period should be extended to three years.
- The notification of closure requirement could discourage storage approaches that would promote future resource recovery but would require more than a year to materialize. For these cases, rules should allow indefinite periods before closure (as long as active maintenance and monitoring programs are in place) or else closure plans which will not discourage future recovery.
- The provisions of §§264.112(d)(2) and 265.112(d)(2) could be interpreted as implying that if a facility has not operated for one year, the owner must initiate final closure. Either

this one-year limit should be deleted or the rule should be clarified.

- Deadlines should be eliminated in §§264.112(d), 265.112(d), 264.113 and 265.113. It may be that EPA's deadline concept is purposeful in the case of commercial hazardous waste management facilities, but in the case of industrial facilities conducting hazardous waste management incidental to a manufacturing enterprise, the deadlines are unnecessary, irritating and cumbersome.

The Agency agrees with the commenter that if the unit or facility has the capacity to receive additional hazardous wastes, then it may be appropriate to allow it to remain open provided the owner or operator is in compliance with all applicable requirements. In addition, the Agency no longer believes that the variance provision should be limited to tanks and container storage. Therefore, §§264.112(d)(2) and 265.112(d)(2) were revised to allow the Regional Administrator to grant an owner or operator of any type of hazardous waste management unit an extension to the one-year deadline for notification of closure if the unit has additional capacity and the owner or operator has taken and will continue to take the necessary steps to prevent threats to human health and the environment, including compliance with all permit and interim status requirements.

The Agency does not believe, however, that facilities should be exempt from the deadline requirements. To ensure that the owner or operator does not use the variance provision as a way to prolong unnecessarily the commencement of closure, the Agency is allowing the variance only if the facility has additional capacity available and the owner or operator demonstrates compliance with all applicable regulations. EPA believes facilities should be closed as soon as practicable after the last receipt of hazardous waste, to avoid an unnecessarily increased risk to human health and the environment from inactive but unclosed units. For example, leaks, entry of liquids from precipitation into landfills, overtopping of dikes from sudden storms, and vandalism can be limited or avoided if the facility is closed as soon as practicable.

In the case of a storage facility filled to capacity but intending to employ resource recovery that is not yet on-line, the Agency would extend a variance to the closure deadlines if the owner or operator could demonstrate that on-site resource recovery capacity would be available to handle these hazardous wastes. Rather than giving approval to an extension solely on the basis of compliance with applicable permit conditions, the Agency believes it is necessary to review extension requests individually to verify the situation at the facility requesting the extension and ensure that the reasons for the extension are valid. By granting extensions based on cause, the Agency can apply the proposed rule more flexibly on a facility-by-facility basis.

III.G.5 Final Rule

The Agency is adopting the final rule substantially as proposed. The date of "expected closure" must be within 30 days of the last known final volume of hazardous waste, or no later than one year after the date on which the last volume of hazardous waste was received if there is a reasonable likelihood that additional hazardous wastes will be received. The final rule extends the variance provisions to all hazardous waste disposal units as follows: if a hazardous waste management unit has the capacity to receive additional wastes and is otherwise in compliance with all operating requirements, the Regional Administrator may approve an extension to the one-year limit. To ensure that the owner or operator does not use the variance provision as a way to prolong unnecessarily the commencement of closure, the Agency is allowing the variance only if the facility has additional capacity available and the owner or operator demonstrates compliance with all applicable regulations.

III.H Removal of Wastes and Decontamination or Dismantling of Equipment

§§264.112(e) and 265.112(e)

III.H.1 Synopsis of Previous Regulation

Sections 264.112 and 265.112 did not indicate whether activities such as removing hazardous waste and decontaminating or dismantling equipment could be undertaken prior to closure.

III.H.2 Summary of Proposed Rule

EPA proposed to add new subsections, §§264.112(e) and 265.112(e), providing that nothing in §§264.112 or 265.112 "shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure".

III.H.3 Rationale for Proposed Rule

The Agency agrees with petitioners in the ACCI litigation, who argued that requiring 180-day notice before any hazardous wastes can be removed or facility equipment can be dismantled unreasonably interferes with production processes and decisions. In particular, this requirement could be unreasonably burdensome for owners or operators who frequently replace tanks or containers as part of routine operations. In addition, the Agency agrees with the petitioners that postponing the removal of wastes for 180 days might be environmentally unsound. Although the previous regulations did not preclude an owner or operator from removing wastes or dismantling equipment prior to notification of closure, the Agency agreed to make this allowance explicit in the proposed rule.

III.H.4 Comments and Responses

In addition to a few commenters who agreed with the proposed amendment, a number of commenters proposed the following changes:

III.H.4.1 Relationship to Closure Plan

- The final rule should clarify whether an interim status facility without an approved closure plan may remove hazardous waste and decontaminate equipment prior to receiving closure approval.
- Activities which are completed prior to closure plan approval will be subject to the factual content of the plan as finally approved and thus may constitute a violation according to that plan. Addition of the term "approved" closure plan for interim status facilities will result in *post hoc* judgments by regulatory authorities that may render unacceptable activities which were previously undertaken in good faith compliance with the closure plan prior to its submission for approval. The provision would also discourage removal of hazardous wastes as quickly as possible.
- The proposed language concerning waste removal should be clarified to explain that the language allows the owner/operator to remove waste and to decontaminate equipment without risk of further requirements for these activities *only* when the closure plan as ultimately approved would not require *different* management.
- The word "approved" in the language of the proposed rule should be deleted. It implies, contrary to the settlement's intent, that the owner or operator of an interim status facility must first seek approval of a closure plan before removing wastes or dismantling equipment.

The Agency does not agree that requiring the removal of hazardous waste or decontamination of equipment to be in accordance with the *approved* partial or final closure plan is inconsistent with the provisions of the settlement agreement. The Agency agreed with the petitioners in the ACCI litigation that under the original rules the owner or operator was not precluded from removing wastes and decontaminating and/or dismantling equipment at any time without providing notice to EPA and, for interim status facilities, prior to submission of a closure plan. As a result, the Agency agreed to make this point explicit in the regulations (proposed §§264.112(e), 265.112(e)).

The Agency, however, never intended that this provision should preclude the Agency from ensuring that such activities meet the closure standards. 40 CFR §264.112, for example, has always required the closure plan to include "a description of the steps needed to decontaminate facility equipment during closure." If facility equipment was decontaminated prior to closure by a process that did not meet the closure performance standards, a satisfactory level of decontamination might not be achieved. As a result, the Agency believes that any such activities must be in accordance with the activities in the approved closure plan. The Agency does not believe this will result in a burden to owners or operators. If their actions satisfied the closure performance standard, then it would be subsequently approved.

III.H.4.2 Relationship to Interim Status Facilities

- Interim status facilities should not be allowed to remove waste and decontaminate or dismantle equipment prior to notification of closure. EPA review and plan approval should be maintained prior to the initiation of closure activities.

Even for interim status facilities without approved closure plans, the Agency does not believe that this requirement will result in a risk to human health or the environment. As long as the activities conducted prior to the submission of the closure plan satisfy the closure performance standard, these activities would be approved in the closure plan and would not render unacceptable activities previously undertaken. Activities would only be rendered unacceptable if they proved to be inconsistent with the closure performance standard. In such situations, additional activities would have to be undertaken to satisfy the conditions in the approved closure plan.

III.H.4.3 Notice before Removal

- In order to allow enforcement staff time to arrange a visit to the facility if they believe inspection of waste removal or decontamination or dismantling of equipment is necessary, a ten-day prior notice requirement should be adopted.

Under the requirements of §§264.73 and 265.73, the owner or operator must record in the facility's operating record how all hazardous wastes have been handled. This record can subsequently be reviewed by an inspector. In addition, an independent professional engineer must certify that the entire facility has been closed in accordance with the approved plan which also should ensure that appropriate activities are undertaken. The Agency believes that a prior notice requirement would be unduly burdensome on owners or operators who frequently replace tanks or containers as part of routine operations. Consequently, the Agency did not agree that separate notice of the commencement of these activities prior to closure is required.

III.H.5 Final Rule

The final rule was promulgated as proposed.

III.I Time Allowed for Closure
§§264.113 and 265.113

III.I.1 Synopsis of Previous Regulation

Sections 264.113(a) and 265.113(a) previously required the owner or operator to remove from the site, treat, or dispose of all hazardous wastes in accordance with the closure plan within 90 days after receiving the final volume of hazardous wastes. The Regional Administrator was allowed to extend the deadline, if the owner or operator demonstrated, among other things, that there was a reasonable likelihood that a person other than the owner or operator would recommence operation of the facility and that the owner or operator had taken and would continue to take all steps necessary to prevent threats to human health and the environment. Sections 264.113(b) and 265.113(b) required the owner or operator to complete closure activities within 180 days after receiving the final volume of wastes unless the Regional Administrator granted a longer period.

III.I.2 Summary of Proposed Rule

The proposed rule replaced the language in §§264.113(b) and 265.113(b) to require closure to be completed within 180 days of the final volume of hazardous waste. This change made the deadlines for completing closure consistent with the deadlines for removing all hazardous wastes--i.e., within 90 days of the final volume of hazardous waste. The proposal also: (1) specified circumstances under which the deadlines may be extended; (2) limited the length of extensions of deadlines; (3) added deadlines for making these demonstrations; and (4) clarified what demonstrations must be made for an extension to be granted.

Specifically, the Agency proposed to amend Parts 264 and 265 regulations to allow extensions to the deadlines for handling inventory and completing closure if the owner or operator intended to recommence operations. The proposal limited the extensions of the deadlines for handling all hazardous wastes and for completing closure to one year after the final receipt of hazardous waste, with an option for an additional one-year extension. The Agency also proposed to add two new subsections, §§264.113(c) and 265.113(c), providing that the demonstrations referred to should be made at least 30 days prior to the expiration of the 90-day period established in §§264.113(a) and 265.113(a) and at least 30 days prior to the 180-day period established in §§264.113(b) and 265.113(b), or within 90 days of the effective date of the regulation, whichever was later.

Finally, the Agency proposed to amend §§264.113(a)(2), 265.113(a)(2), 264.113(b)(2) and 265.113(b)(2) to require owners or operators to show that they are in compliance with all applicable operating permit requirements (in the case of permitted facilities) or interim status requirements.

III.I.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that the deadlines imposed by §§264.113 and 265.113 precluded the original owner or operator from temporarily suspending operations. Some facilities, especially storage and treatment facilities that are dependent on industrial operations that fluctuate due to market or economic conditions, may not receive additional hazardous wastes for indefinite periods of time, although the same owner or operator may expect to renew operations after a temporary shutdown. In addition, the petitioners argued that it may be difficult for an owner or operator to predict when operations will be reactivated and, as a result, a time extension granted by the Regional Administrator may expire before the owner or operator or another party renews operations. Because the Agency agrees that the opportunity to request an extension to the deadlines should be granted to an owner or operator as well as to a third party, the Agency extended the option of an extension to the closure period to an owner or operator.

The Agency also agreed with the ACCI petitioners that, in some cases, it may be appropriate to allow owners or operators the opportunity to reapply for an extension to the 90-day deadline for handling all hazardous waste and the 180-day deadline for completing closure of a hazardous waste management unit or facility. To ensure that the facility does not remain inactive but unclosed for an extensive period of time, the Agency allowed a maximum of two extensions. Because no regulations specified deadlines for submitting documentation to the Regional Administration supporting variance requests, the proposal added new subsections establishing time periods for demonstrations.

Finally, in order to ensure that the owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed facility, the Agency proposed to amend Parts 264 and 265 to require owners or operators to show they are in compliance with permit requirements or, where applicable, interim status provisions as a condition of an extension of the deadline.

III.I.4 Comments and Responses

III.I.4.1 Partial Closure vs. Closure of Entire Facility

- **The regulations could be interpreted as requiring closure of an entire facility if hazardous wastes are no longer handled by a single unit. Regulatory language should be designed to avoid triggering actions for an entire facility.**

The Agency agrees that the proposed regulations could be interpreted as requiring closure of an entire facility rather than of a single unit. It is not EPA's intent to trigger actions for the entire facility when hazardous wastes are no longer handled by one unit. Therefore, the language in the final rule clarifies that the regulations apply on a unit basis.

III.I.4.2 Need for Flexibility

- Greater flexibility should be provided in closure schedules to account for business conditions, weather, and the interrelationship of the facilities involved. Variances to the requirement for completing closure within a specified time should be allowed on a facility-specific basis.
- In northern climates, closure of a hazardous waste management unit or facility may be interrupted by the onset of winter and could exceed the 180-day requirement. For facilities with a longer closure period due to special circumstances, requesting a modified closure time period should be an option in the original RCRA permit application.
- Closures, despite all best efforts, cannot be accomplished within the brief time schedules proposed by EPA. Sometimes it may be necessary to close multiple sites concurrently; this can be further complicated by the interrelationship of the facilities involved.

The Agency believes that the proposed regulations allow sufficient time for closure despite business schedules, weather, and any other potential delays. For reasons discussed in detail later in this section, the Agency believes that timely closure is very important, and believes that specified time limits for closure provide useful limits. Furthermore, as discussed below, an extension of the final closure date can be sought as a permit modification. The Agency does not believe that additional language is necessary to allow incorporation of a modified closure time period in permit applications. Nothing in the existing Part 270 regulations precludes this option.

III.I.4.3 Extensions as Permit Modifications

- An extension of the final closure date must be sought as a permit modification pursuant to Part 270. While the preamble suggests that this is a minor clarification of the existing regulations, we are concerned that such extensions may be treated as major permit modifications requiring compliance with the public participation requirements. The note in the existing regulations clarifying that such changes are minor modifications has been dropped for no apparent reason.

The Agency agrees that an extension of the final closure date is a minor permit modification. Under the provisions of §270.42, an extension of the final closure date is defined as a minor permit modification. Minor permit modifications do not require public participation.

III.I.4.4 Definition of "Reasonable Likelihood"

- The Agency should use as a test of "reasonable likelihood" whether the owner or operator can present a letter from a prospective buyer for the facility. A prospective buyer would not sign correspondence unless a deal was imminent. The owner or operator does not need one year to find a market for his facility. Six months should be adequate to find a buyer.
- EPA has questioned whether it should develop criteria or standards for determining for closure purposes whether there is a "reasonable likelihood" that a temporarily inactive facility will recommence operations within a year. The Agency should wait to develop generally

applicable standards based on its accrued experience with the provision.

- The test of "reasonable likelihood" in §§264.113 and 265.113 may be difficult to enforce, because such subjective language allows too much interpretation by both the permitting agency and the permittee. More objective standards should be applied, such as a purchase agreement or specific documentation of intent to use the site.

The Agency agrees that standards for "reasonable likelihood" should be based upon experience and initially expects to allow maximum flexibility to account for as many site-specific variations as possible. EPA therefore, is not promulgating fixed standards.

III.I.4.5 Inconsistencies with Settlement Agreement

- The proposed rule for interim status facilities is not consistent with the settlement agreement, which specifies that the time limits are triggered by the final receipt of hazardous wastes or approval of the plan, whichever is later. The Agency also shortened the time limits for closure and for extensions agreed to in the settlement, and added the phrase "using the procedures of §265.112(d)" to the language agreed upon in the settlement.

The Agency acknowledges that it inadvertently failed to include some of the language of the ACCI settlement agreement in the proposed regulations. The final §265.113(a) incorporates the settlement language and states that all hazardous wastes must be treated, removed off-site or disposed "within 90 days after receiving the final volume of hazardous wastes... or within 90 days after approval of the closure plan, whichever is later..." Also, the final 265.113(b) includes the settlement language requiring closure to be completed "within 180 days after receiving the final volume of hazardous wastes..., or 180 days after approval of the closure plan, if that is later", rather than 90 days that was inadvertently included in the proposal.

The Agency also agrees that limiting the length of the closure period to a maximum of 2-1/2 years may be inconsistent with the settlement provisions. Moreover, if the unit or facility has additional capacity to receive additional hazardous wastes and the owner or operator is in compliance with all applicable operating requirements, an owner or operator should not be restricted to 2-1/2 years. If the owner or operator is not in compliance with all applicable operating requirements, numerous authorities are available to the Agency to require compliance or closure of the facility Therefore, the final rule deletes the 2-1/2 year limitation on the length of the closure period and allows the Regional Administrator to approve an extension to the 90- or 180-day period subject to the conditions in §§264.113 and 265.113.

The Agency also acknowledges that it inadvertently included a reference to the procedures in §265.112(d) in the proposed §265.113 for requesting extensions to the closure deadlines. The Agency agrees that requiring elaborate administrative procedures, including public hearings at the Regional Administrator's discretion, under interim status is more stringent than the requirements for permitted facilities. Under the provisions of §270.42, extensions to the closure deadlines are considered minor modifications and do not require public participation. Consistent with the settlement provisions, the final rule drops the reference to the procedures of §265.112(d) in §§265.113(a) and (b).

III.I.4.6 Adequacy of Deadlines

- The requirement that facilities submit a request for an extension within 90 days from the effective date of regulation does not allow non-operating facilities, for which closure is pending at the time the regulations are promulgated, adequate time to comply.

The Agency believes that 90 days is an adequate amount of time for an owner or operator to request an extension of the closure deadlines. In fact, because the regulations do not go into effect for six months from the date of promulgation, for facilities with closures pending at promulgation of the regulation, the time for compliance would effectively equal 180 days. The Agency wishes to ensure that inactive and unclosed facilities are closed as quickly as possible to minimize potential threats to human health and the environment. As a result, the Agency is dropping the proposed language of "90 days from the effective date of the proposed rule, if that is later" from the final rule.

III.I.4.7 Receipt of Solid Wastes After Final Receipt of Hazardous Wastes

- Under the existing regulations, an owner or operator of a hazardous waste management unit must complete partial and final closure activities within 180 days of receiving its last volume of wastes. By changing the language in the proposed rule to "last volume of hazardous

> wastes," a facility which did not intend to receive additional volumes of hazardous wastes but did intend to receive additional volumes of non-hazardous wastes would have to begin closure. This is not consistent with the preamble, settlement, or legislative intent.

The Agency believes that the continued receipt of solid waste at a hazardous waste management unit after the last volume of hazardous waste has been received should not delay or interfere with closure of the unit. Therefore, the Agency proposed to change the language in the rule to "final volume of hazardous wastes." By requiring closure after the last volume of hazardous waste has been received, the Agency expects hazardous waste management units and disposal facilities in particular to be closed in a more timely manner.

EPA believes that closure of hazardous waste management facilities as soon as practicable after the last receipt of hazardous waste is extremely important because unclosed units present an unnecessary increased risk to human health and the environment. One particularly important result of closure after the last receipt of hazardous waste is the added protection that would be afforded ground and surface water. EPA has developed a liquids management strategy for ground and surface water protection at land disposal facilities. The fundamental goal is to minimize the migration into the environment of the hazardous constituents of waste placed in land disposal units. One element is to minimize leachate generation and migration to the adjacent subsurface soils, ground water, or surface water during the operating life and the post-closure period.

The regulatory goal of minimizing the formation and migration of leachate for permitted units is achieved through the Part 264 design and operating standards that require the use of (1) liners that are designed, installed, and operated to prevent any migration of waste out of the unit to the adjacent subsurface soil or ground water or surface water throughout the active life of the unit; (2) the installation of leachate collection and removal systems and run-on controls; and (3) the placement at closure of a final cover on units or the removal at closure of the waste, waste residues, liners and contaminated soil and ground water.

For interim status disposal units that do not have liners or leachate collection systems, the final cover is the mechanism used to minimize the formation and migration of leachate. It is, therefore, particularly important that such units be closed as soon as possible after the receipt of the final volume of hazardous waste. For closure of units at which all hazardous wastes are removed at closure, the waste, waste residues, liners, and contaminated soils and ground water must be decontaminated or removed.

Both the Part 264 and 265 standards require a final cover on units where the waste is left in place to provide long-term minimization of migration of liquids through the closed units. A properly designed and maintained cap can prevent the entry of liquids into the closed unit, thus preventing the formation and migration of leachate for many years, and minimizing it thereafter in the absence of damage.

The closure standard for storage or treatment surface impoundments and waste piles as well as all other types of storage and treatment units (e.g., tanks) requires the removal or decontamination of all residues, contaminated containment systems components, contaminated soils and ground water, and structures and equipment during closure. For this type of closure (closure by removal of all hazardous wastes) the potential for additional adverse impact on human health and the environment is removed during closure. The liquids management strategy is met by removing the hazard.

Therefore, a unit or facility must be closed as soon as practicable after the last receipt of hazardous waste to be consistent with EPA's strategy for protecting human health and the environment. The following adverse conditions may occur if the unit is not closed in a timely manner:

(1) Landfills and waste piles:

- Increased leachate generation in the absence of a final cover, or in the case of a storage waste pile, because the hazardous waste has not been removed or decontaminated;
- Increased leachate migration at interim status units without liner and leachate collection systems;
- Increased leachate migration at units with liners that do not prevent migration or are leaking;
- Continued potential for wind disposal or erosion of hazardous waste;
- Direct access to the hazardous waste; and

- Increased potential for the bathtub effect (i.e., filling with leachate and overflowing).

(2) Surface impoundments (both storage and disposal):

- Increased hazardous waste migration at interim status units without liner and leachate collection systems because the waste has not been removed or dewatered and covered;
- Increased leachate/hazardous waste migration at units with liners that do not prevent migration or are leaking;
- Continued higher potential for migration as long as there is a head of liquid in the unit;
- Continued potential for overtopping or dike failure while the unit contains liquid hazardous waste;
- Continued potential for wind dispersal and volatile emissions; and
- Direct access to the hazardous waste.

Under certain circumstances, receipt of solid waste after the last volume of hazardous waste may be beneficial in bringing a disposal unit to the proper final elevation or in establishing the final contour of the unit. However, the solid waste placed in the unit should not (1) create problems due to incompatibility with the hazardous waste or liners, (2) be of a high organic content or have a high voids ratio that could result in differential settlement and damage to the final cover, or (3) result in a delay in closure of the unit.

The Agency also disagrees with the commenter's argument that this proposed change is inconsistent with the Congressional intent evidenced in the HWSA legislative history regarding closure of surface impoundments. HSWA contains no provisions addressing the question of whether disposal surface impoundments that cease to accept hazardous waste should be required to close or allowed to stay open to receive non-hazardous waste. HSWA merely addresses retrofitting requirements for surface impoundments by adding Section 3005(j) of RCRA, which requires interim status surface impoundments that receive, store or treat hazardous waste after November 1, 1988 to retrofit to install double liners and leachate collection systems. The legislative history contains a brief discussion that indicates that this provision does not require the closure of an impoundment that ceases to receive hazardous waste but continues to receive non-hazardous wastes, and that requiring such closure would not be proper if the management of the impoundment is protective of human health and the environment.

The legislative history of Section 3005(j) of RCRA merely evidences the fact that Section 3005(j) itself does not mandate closure of interim status surface impoundments that cease to receive hazardous waste. It leaves unimpaired the Agency's pre-existing authority to establish by regulation appropriate closure requirements for interim status surface impoundments as necessary to protect human health and the environment. As discussed above, the Agency has concluded that the expeditious closure of hazardous waste disposal surface impoundments after they are no longer receiving hazardous waste for disposal would significantly improve protection of human health and the environment. Requiring such closure is thus consistent with Section 3005(j) of RCRA and its legislative history.

III.I.5 Final Rule

The Agency is making a number of changes to the proposed rule to make the final rule consistent with the ACCI settlement language. First, the final rule includes the language inadvertently omitted from the proposed rule, namely: the specified 90-day period in §265.113(a) will begin only after the approval of the closure plan, if that is later than the final receipt of hazardous waste; §265.113(b) retains the previous period of 180 days to complete closure; the reference to "the procedures of §265.112(d)" in §265.113(a) and (b) has been deleted. Second, the final rule eliminates the requirement that the closure period be limited to a maximum of 2-1/2 years. The Regional Administrator may approve an extension to the 90- or 180-day periods if certain criteria are satisfied. No maximum length of time is specified for the length of the extension.

The final rule is promulgating as proposed that closure must be completed within 180 days after the final receipt of hazardous wastes.

In the absence of sufficient information at this time, the Agency is not currently establishing standards for determining what constitutes a "reasonable likelihood" that the owner or operator or another party will recommence operations of the facility.

III.J Disposal or Decontamination of Equipment, Structures, and Soils

§§264.114 and 265.114

III.J.1 Synopsis of Previous Regulation

Sections 264.114 and 265.114 previously required owners or operators to dispose of or decontaminate all facility equipment and structures. The removal of contaminated soil was not mentioned explicitly.

III.J.2 Summary of Proposed Rule

The proposed rule expanded §§264.114 and 265.114 to require owners or operators to remove all contaminated soils as part of partial and final closures.

III.J.3 Rationale for Proposed Rule

In order to satisfy the closure performance standard and prevent threats to human health and the environment, the Agency believes that all contaminated soils must be removed at partial and final closure (with the exception of those contaminated soils that are allowed to remain in place at closed landfills and at surface impoundments and waste piles closed as landfills). Since contaminated soil may be a problem at all types of TSDFs, the Agency proposed to include in §§264.114 and 265.114 an explicit requirement to remove or decontaminate all contaminated soils.

III.J.4 Comments and Responses

Some commenters expressed concern about how to identify contaminated soils and what standard to use for their cleanup.

III.J.4.1 Cleanup Standards

- The rule should apply a "rule of reason" and require soil analysis only for constituents expected to be in the soil based upon the hazardous waste known by the owner or operator to have been managed in a unit.
- Limit removal or decontamination to contamination caused directly by the unit being closed, and to soil background levels or to levels necessary to protect human health and the environment, whichever is greater.
- EPA must specify criteria and decontamination standards for how clean is "clean" for closure.
- Facility owners or operators should remove all soil contaminated with 40 CFR 261 Appendix VIII constituents above background concentrations. This requirement would be most consistent with groundwater and delisting requirements and with requirements in the Hazardous and Solid Waste Amendments of 1984.
- Base the definition of contaminated soil on a scientific criterion that will protect human health and the environment rather than on background levels.
- The permit writer should be allowed to modify closure requirements where closure is not consistent with continued use of the site and environmental protection equivalent to that available from closure can be achieved.

The Agency believes that it is important to test for and clean up all contaminated soils. Limiting the requirement only to those hazardous wastes known to have been present at the facility would mean that incomplete records could mislead an owner or operator into conducting an incomplete cleanup. This broader requirement is also consistent with Section 206 of HSWA, which requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal facility seeking a RCRA permit.

The Agency recognizes the need for criteria for determining "how clean is clean" and is developing guidance on this issue. However, specification of such criteria is outside the scope of this rulemaking.

III.J.4.2 Soil Sampling for Tanks

- Soil sampling is particularly necessary around tanks and other equipment where concrete paving and curbing for spills is not present.

The Agency agrees that soil sampling is particularly important where hazardous waste containment systems are not present. The amendments to §§264.114 and 265.114 are intended to address the commenter's concern.

III.J.4.3 Exclusion of Certain Equipment from Requirement

- Leachate collection systems, liners, slurry walls, and similar equipment need to be specifically excluded from this requirement.

The Agency agrees that systems and equipment critical to post-closure care maintenance should be excluded from the requirement. As noted with respect to the comments to §§264.112 and 265.112, the intent of this requirement is not to require owners and operators to remove parts of the facility that are necessary for protection of human health and the environment during the closure and the post-closure care period.

III.J.5 Final Rule

The final rule was adopted as proposed.

III.K Certification of Closure
§§264.115, 265.115

III.K.1 Synopsis of Previous Regulation

Sections 264.115 and 265.115 previously provided that when closure was completed, the owner or operator must submit certification by both himself and an independent registered professional engineer that the facility had been closed in accordance with the specifications in the approved closure plan.

III.K.2 Summary of Proposed Rule

The proposed rule: (1) dropped the requirement that the registered professional engineer be independent; (2) extended certification requirements to the partial closure of disposal units; (3) added deadlines for submitting certifications of 45 days after completion of closure of disposal units and 30 days after completion of final closure; (4) required that technical documentation supporting certification be submitted upon request; (5) required certification be submitted by registered mail; and (6) requested comments on approaches that would be appropriate for approving closure certifications.

III.K.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation challenged the need for certification by an independent registered professional engineer on the grounds that an in-house engineer would be in the best position to observe the ongoing closure activities and to ensure that they conform to the approved closure plan. Moreover, the petitioners contended that professional standards and statutory criminal penalties for false certifications would provide adequate assurance that in-house registered professional engineers would make competent and honest certifications.

Because the proposed rule relied on professional standards and statutory penalties to prevent inadequate certifications, the Agency requested comments on whether it should specify the types of professional engineers that could certify closure to prevent unqualified certifications. For example, while the Agency would consider most civil or sanitary engineers qualified to certify closure, an electrical engineer might not be qualified. In addition, differences among hazardous waste management units could affect the types of qualifications that would be appropriate.

The Agency was also concerned that unless certification of a partial closure occurs when the unit is closed, it may not be possible at final closure to determine if previous partial closures were in accordance with the approved closure plan. Therefore, the Agency proposed that partial closures of landfill, surface impoundment, waste pile, and land treatment units be certified as they are performed. Certification of partial closures involving other types of non-disposal units (i.e., incinerators, container storage, and tank storage or treatment) could be delayed until final closure. Although the proposal allowed certification to be delayed until final closure, the owner or operator was still responsible for ensuring that closure of the incinerator, container storage, or tank was in accordance with the approved closure plan.

The proposal also added a requirement that certifications be submitted to the Regional Administrator by registered mail within 30 days of completing partial closure of disposal units, and within 45 days of final closure activities. To allow maximum flexibility and minimize burdens to owners and operators, the Agency did not propose that documentation (e.g., inspection reports, quality assurance/quality control demonstrations) be submitted to the Regional Administrator to support the closure certification; however, instead, the proposal required that documentation supporting the certification be available upon request. In addition, the Agency requested comments on the desirability of requiring supporting documentation to be submitted with closure certifications, the types of documentation that would be appropriate, and the appropriateness of requiring the Regional Administrator to approve or verify the accuracy of the closure certification.

III.K.4 Comments and Responses

The proposal to drop the requirement that the registered professional engineer be independent received strong support from a number of commenters, but was also opposed by several commenters. A number of commenters also argued that EPA should not establish standards for the types of professional engineers who would be allowed to certify closure. Finally, several commenters offered different suggestions concerning the documentation that should be required to support closure certification.

III.K.4.1 Need for Independent Professional Engineer

- The requirement that a certifying engineer be independent should be eliminated.
- The requirement that a certifying engineer be independent should not be eliminated.
- The independent professional engineer requirement should remain. Most independent professional engineers are dependent on their State license for their earnings as a small consulting company. The independent professional engineer would lose his livelihood if his license were revoked for improper certification. A company's professional engineer would still have a job if his license was revoked. Manufacturers are exempt from professional licensing requirements in most states. The employer might even pressure an individual engineer to misuse his stamp for the "good" of the company. The engineer would be caught between his employer and the law without the option to "walk away." An independent engineer would not have this conflict.

Petitioners in the ACCI litigation argued that an in-house engineer would be in the best position to observe and certify closure activities. However, the same argument could be made in other situations that do require a third-party opinion. For example, a common practice in the United States is to require certifications and audits by independent accountants even though in-house accountants handle all day-to-day business operations. In these cases, objectivity is considered to be of paramount importance, overriding the fact that in-house professionals may possess equal qualifications and have direct knowledge of the firm's day-to-day operations.

Typically, objections to third-party requirements rest upon the issue of cost. EPA is convinced, however, that because of the importance of closure in ensuring long-term protection from releases of hazardous wastes, requiring the engineer to be independent is the most effective way to ensure an objective evaluation of closure procedures. The Agency believes the benefits of an independent certification justify the relatively small additional costs.

The costs of hiring an independent registered professional engineer will generally be a small share of the total closure costs. EPA estimates that certification of closure activities by an independent engineer will require from 14 hours (for tank and container storage units) to 80 hours (for storage surface impoundments).[4] Assuming an hourly rate of $75 for an independent engineer and $30 an hour for an in-house engineer, the additional costs of certification by an independent engineer range from $630 to $3,600 (excluding any additional costs for the independent engineer to become familiar with the facility). In contrast, total closure cost estimates (for median sized facilities range from $6,000 (for a 4,100-gallon storage container area) to over $4 million (for a 1.2-acre storage surface impoundment). The cost of certification by an independent engineer thus will range from approximately 0.1 to 10 percent of the total closure cost estimate.

---

[4] Average and Maximum Engineering Cost Estimates for Closure, (Draft Final Report) August 1983, Pope-Reid Associates, Inc.

Although the independent certification requirement might impose larger proportional additional costs for very small container and tank storage areas, the actual costs of certification are likely to be low. Certification is not required upon partial closure of containers or tanks if these storage areas are part of a larger, multiple-process facility. Instead certification of these units would occur in conjunction with certification of other units or as part of final closure certification. The Agency expects only rare instances when the costs of independent certification become a significant portion of total closure costs. The Agency, therefore, is requiring in the final rule that the engineer must be independent.

III.K.4.2 Criteria for Engineer Qualifications

- Criteria for the registered professional engineer should be made specific to ensure that the engineer is registered in an appropriate discipline.
- EPA should not specify which types of engineers are qualified to certify closure.

- The engineer's certification should include a statement that the engineer has the appropriate training and/or experience to certify closure at the particular facility.

- Professional ethics and requirements, supported by a professional engineer's signed certification, would deter a professional engineer from signing for activities for which he or she was not qualified or did not have adequate support.

The Agency has concluded that it will not attempt to specify the training, experience, or other qualifications for independent registered professional engineers. It is convinced, as one commenter noted, that professional standards and the requirement that the engineer be independent will ensure that engineers who are not qualified to undertake such activities will not certify closure.

III.K.4.3 Partial Closure Certification

Most of the commenters favored the proposal to require partial closure certifications for land disposal units. Moreover, several suggested that the requirement be extended to all partial closures, including container and tank storage and incinerator units.

- The current regulation has been interpreted by at least one State to require certifications of partial closures; therefore the proposed regulation does not constitute a change.

- Partial closure certifications should apply to incinerators and storage units as well as land disposal units.

- Although it may be acceptable to delay certification by a professional engineer of partial closures of incinerators or storage units, the Agency should require the owner or operator to submit documentation regarding the work done. This documentation should be maintained at the facility until final closure.

- Certification should only be required at the completion of final closure activities.

The Agency has considered the viewpoints on this issue and has concluded that certification of partial closures of storage units and incinerators is not necessary. It is important to certify closures of land disposal units as they occur because hazardous wastes may remain after closure. Partial closure certifications verify to the Agency that the remaining hazardous wastes have been managed and contained in a manner that will prevent future threats to human health and the environment. Such verifications (e.g., checks that the cover design meets the specifications included in the approved plan) would not be as easy to determine after partial closure has been completed. On the other hand, storage units and incinerators can be inspected at any time to verify that hazardous wastes have been adequately removed. In addition, the Agency retains the authority to request and review supporting documentation of any closure, whether certified or not.

III.K.4.4 Certification Deadline

- The certification deadlines for partial closure and final closure should be the same.
- The certification deadlines may not allow sufficient time to fully document closure if the Agency requires such documentation.

- The wording of §264.115 should be consistent with that of §265.115, by reading "... within 30 days _after_ completion of final closure..." rather than "... within 30 days _of_ completion..."

The Agency agrees with the commenters that the deadlines for certifying both partial closures and final closures should be consistent and that a 30-day deadline may not provide sufficient time to document partial and final closure. The final language of §§264.115 and 265.115 has been made parallel, and both require certifications to be submitted _within 60 days_ of completion of partial or final closure.

III.K.4.5 Documentation of Certification

Comments on the issues of Agency approval of closure certifications and submission of supporting documentation ranged from favoring no approval or documentation to favoring formal Regional Administrator approval and the submission of extensive documentation. The Agency solicited comments on these issues, in part, because it was concerned that dropping the requirement for the engineer to be independent might require some form of Agency review or approval and/or submission of documentation. Because the Agency has decided to retain the requirement that the engineer be independent, the context within which the comments were submitted has changed.

- The Regional Administrator's or Agency's approval or verification of the adequacy of the closure certification should not be required.

- Documentation requirements are unnecessary. The major barriers to falsification are the legal liabilities. The barrier is not significantly affected by asking for documentation on the engineer's certification.

- The Agency could inspect both the site and documentation if the Agency deemed it necessary.
- The short deadlines may not allow for the completion of all drawings, plans etc., necessary to fully document closure. Furthermore, the requirement to maintain the documentation is open-ended, and, especially for final closure of facilities not subject to post-closure care, no long-term custodian of the documentation may be present.
- Not requiring documentation raises a question of citizen access: concerned citizens cannot evaluate closure if pertinent information is not in EPA files.
- Items such as invoices for delivery and installation of a synthetic cap should serve as documentation for certification.

Because certifications will be conducted by an independent registered professional engineer, the Agency agrees with the commenters who suggested that mandatory submission of documentation and formal Agency approval of closure certification are both unnecessary. The Agency also agrees, however, that the Regional Administrator should have the authority to request supporting documentation if necessary for evaluating whether closure has been conducted in accordance with the approved plan. The owner or operator is released from the financial assurance requirements under §§264.143(i) and 265.143(h) unless the Regional Administrator determines closure has not been in accordance with the approved plan. Therefore, the Agency is requiring that supporting documentation be made available upon request. Possible types of supporting documentation include those recommended by commenters.

III.K.5 Final Rule

After analyzing the comments, the Agency has decided to retain the requirement in the previous rule that the registered professional engineer certifying closure must be independent. In addition, the Agency revised the language in the proposed rule to require that certifications for partial and final closures be submitted within 60 days of the completion of partial or final closure. The balance of the rule was adopted as proposed.

III.L Survey Plat
§§264.116 and 265.116

III.L.1 Synopsis of Previous Regulation

Sections 264.119 and 265.119 previously required the owner or operator of a disposal facility to submit a survey plat to the local zoning authority (or the authority with jurisdiction over local land use) and to the Regional Administrator. The survey plat had to be prepared by a professional land surveyor, indicating the location and dimensions of landfill cells or other disposal areas with respect to permanently surveyed benchmarks. The plat also was required to contain a note stating the owner's or operator's obligation to restrict disturbance of the site. The plat was to be submitted within 90 days after final closure of the facility. (The language in §265.119 differed slightly by referring to the local land authority rather than to the local zoning authority or the authority with jurisdiction over local land use.)

III.L.2 Summary of Proposed Rule

The proposed rule moved the survey plat requirement to §§264.116 and 265.116 to clarify that the plat is a closure activity rather than an activity undertaken during the post-closure care period. In addition, the proposal revised the deadlines to require the survey plat to be submitted "no later than the submission of the certification of closure of each hazardous waste disposal management unit." (emphasis added)

III.L.3 Rationale for Proposed Rule

Because the survey plat must indicate the location and dimension of each disposal area, The Agency believes it must be prepared prior to the completion of all closure activities at a particular unit. As a result, the Agency proposed to require in §§264.116 and 265.116 that the survey plat be submitted to the appropriate local land use authority no later than the submission of the certification of closure of each hazardous waste disposal management unit. This will ensure that if land transactions involving the site take place immediately after partial closure, the plat will show the location of hazardous waste disposal areas.

III.L.4 Comments and Responses

Commenters generally did not disagree with the requirement to submit survey plats after each partial closure of disposal units. Some commenters argued that the plat was not necessary for certain types of hazardous waste management units, or that certain types of units might need additional time to prepare and file the plat.

III.L.4.1 Applicability to Injection Wells

- Injection wells should be specifically excluded from the survey plat requirement. Unlike a landfill, the final reservoir of a deep well injection facility cannot be surveyed.

The Agency disagrees that the survey plat requirement needs to be revised to explicitly exempt injection wells. Underground injection wells are already exempted from 40 CFR Part 265 Subpart G regulations by §§265.1 and 265.430(a). Under 40 CFR 270.60(b), deep well injection facilities receive permits by rule (i.e., it is deemed to have a RCRA permit if it has a permit under 40 CFR Part 144 or 145 and complies with the conditions of that permit and §144.14). In addition, §264.1 specifies that Part 264 standards apply only to the extent that the requirements are included in 40 CFR 144.14. Because §144.14 does not include a survey plat requirement for permitted UIC facilities, the requirements in §264.116 also do not apply.

III.L.4.2 Survey Plats for Partial Closures

- Since a partially closed area is still within the security boundary of an active facility, survey plats should not be required for such areas.

The Agency believes that it is crucial to submit survey plats for partially closed disposal units to local land authorities no later than completion of each partial closure. Portions of the facility, including portions that have been closed, may be sold before the entire facility is finally closed. In that situation, local land authorities would not have information on locations and dimensions of all closed units. Furthermore, because the owner or operator will have to prepare the plat at the time of partial closure to ensure that accurate information is available, submittal of the plat to the local land authority at that time will not add a significant burden.

III.L.4.3 Scope of Survey Plat

- The plats should include surrounding contaminated areas, if applicable (e.g., if ground-water contamination has occurred).

The Agency agrees that survey plats should show all locations of hazardous waste, including contaminated areas, within the facility boundary. The plat should not be limited to showing the designed boundaries of hazardous waste management units if areas outside those boundaries are contaminated. However, contaminated areas outside the facility boundaries are not required to be included in survey plats. Section 3004(v) of HSWA contains special requirements for corrective action beyond the facility boundary. Descriptions of contamination outside the facility boundaries may be required under orders or regulations under §3004(v).

III.L.4.4 Deadlines for Submitting Plat

- The deadline for submission of a survey plat is needlessly short and burdensome to owners and operators.

The survey plat must indicate the location and dimension of each disposal area, and thus must be prepared prior to the completion of all closure activities for each unit. The proposal required the plat to be submitted no later than the certification of each partial closure. Because the closure certification period has been extended in the final rule from 30 days to 60 days, the time period for submitting the plat has also been extended. In addition, the owner or operator has the 180 days allowed for closure itself to produce a survey plat. The Agency believes this provides adequate time even if no preliminary survey work had been done before the start of closure.

III.L.5 Final Rule

After analyzing the comments, the final rule is promulgated as proposed with minor wording changes.

III.M Post-Closure Care and Use of Property §§264.117 and 265.117

III.M.1 Synopsis of Previous Regulation

Sections 264.117(a)(1) and 265.117(a)(1) previously required the post-closure care period to continue for at least 30 years after the date of completing closure of the facility.

The rule also contained provisions for allowing a reduction of or an extension to the period based on cause.

III.M.2 Summary of Proposed Rule

In subsection (a)(1) of the proposed rule, the Agency clarified the applicability of the post-closure care period for hazardous waste disposal units closed prior to final closure of the facility by requiring the post-closure period to continue for 30 years after the date "that the hazardous waste management unit was closed." Thus, the Agency proposed to make the 30-year care period apply to each hazardous waste management unit independently. The Agency also proposed in §264.117(a)(2) to reduce the period during which the Regional Administrator may shorten or extend the post-closure care period from 180 to 60 days preceding partial or final closure.

III.M.3 Rationale for Proposed Rule

The previous regulations did not state explicitly whether post-closure care activities were required after closure of each hazardous waste disposal unit or only after final closure of the facility. Nor did the regulations specify whether the beginning of the 30-year post-closure care period was triggered by partial closures or only by final closure of the entire facility.

Because of the importance of post-closure care activities for ensuring the long-term security of hazardous waste disposal facilities, the Agency considered it essential for the owner or operator to conduct post-closure care activities as soon as the hazardous waste disposal unit was closed. The Agency, therefore, proposed to require that post-closure care activities begin after the closure of each hazardous waste disposal unit. In order to reduce the burden on an owner or operator who partially closes units prior to final closure, the Agency proposed to trigger the beginning of the 30-year post-closure care period with closure of each unit (i.e., partial closure) rather than with final closure of the facility.

The Agency recognizes that, in some circumstances, the post-closure care period should continue for 30 years after closure of the entire facility rather than after closure of the individual hazardous waste disposal units. For example, unless separate ground-water monitoring systems can be established for each hazardous waste disposal unit (e.g., each cell of a landfill) it would not be possible to differentiate monitoring results for different units. Under these circumstances, as the Agency pointed out in the preamble to the proposed rule, the Regional Administrator would still retain authority under the proposed §§264.117 and 265.117 to extend the length of the post-closure care period. Furthermore, under the proposed rule the owner or operator would have to adjust the post-closure cost estimate and amount of financial assurance if the Regional Administrator extended the post-closure care period for any unit during the active life of the facility (i.e., prior to receipt of certification of final closure).

III.M.4 Comments and Responses

Commenters generally did not oppose the idea of triggering the beginning of the post-closure care period with closure of each disposal unit. Several commenters, however, addressed practical issues of distinguishing among units with differing post-closure care periods.

III.M.4.1 Distinguishing Among Units with Different Post-Closure Care Periods

- Triggering the post-closure care period with each partial closure would cause confusion and could allow an owner or operator to claim that contamination found during the post-closure care period was from a unit for which the post-closure care responsibility was ended. In addition, without separate monitoring systems, it is impossible to determine from which unit contamination originates. EPA should trigger the post-closure care period for all units with final closure of the facility.

- EPA should only allow post-closure care to begin when all the units within a groundwater monitoring system have closed. The key feature of post-closure care is groundwater monitoring. A single ring of monitoring wells may serve more than one unit (40 CFR §264.95). Closure of one unit would force well analyses to serve as "active facility" groundwater monitoring for one unit and post-closure groundwater monitoring for another unit.

- Unless the operator can establish that monitoring of partially closed units is differentiated from monitoring data of still operating units, applying the post-closure period on a unit basis appears to add confusion. All units should be monitored until the expiration of the post-closure period of the final unit.

The Agency recognizes that in some cases a ground-water monitoring system may cover more than one unit and it may be difficult or impossible to differentiate monitoring results for different units. In these cases, unless the owner or operator can demonstrate that separate monitoring systems have been established for each unit, the Regional Administrator would probably extend the post-closure care period for each unit to be consistent with the post-closure care period for the remainder of the units, and ground-water monitoring would be required until the end of the post-closure care period for the last unit.

Even where ground-water monitoring is conducted on a per-unit basis, there may be some potential for uncertainty. In such cases, if the Regional Administrator proposes to extend the post-closure care period, the burden would be upon the owner or operator to show that a post-closure care period should be ended.

III.M.4.2 Criteria for Extending the Post-Closure Care Period

- Requirements to extend the post-closure care period must be dependent on conditions at the site during the time of evaluation.

The Agency agrees that the appropriateness of reducing or extending the length of the post-closure care period is dependent on conditions at the site. The proposed regulation was intended to provide for maximum flexibility to address site-specific conditions. For example, if a facility has a surface impoundment and a landfill with separate monitoring systems, it may be appropriate to terminate the post-closure care periods at different times.

III.M.4.3 Time Periods for Adjusting the Length of the Post-Closure Care Period

- It is unlikely that a need to change the length of the post-closure care period can be determined prior to final closure of the facility.
- Extensions of the post-closure care period beyond thirty years can be determined only near the end of the thirty years.
- A better and more equitable procedure would be to require a review at the end of 20 years of post-closure care, and at that time make the determination whether an extension is necessary. Moreover, the owner should be allowed a review at the end of the 30 years, if conditions have improved.
- Specific criteria must be identified to justify extensions of the post-closure care period.

The previous rule in §§264.117(a)(2)(ii) and 265.117(a)(2)(ii) provided that the Regional Administrator could extend the post-closure care period at any time prior to the time that the period was due to expire. Reductions in the period could be made only 180 days prior to closure or any time thereafter.

The proposed rule allowed extensions or reductions to the period to be made 60 days prior to closure or any time thereafter. In developing the final rule, the Agency wished to provide the maximum flexibility to owners or operators and the maximum public participation. As a result, the final rule expands the ability of the owner or operator or public to request extensions or reductions in the length of the post-closure care period.

The final rule now provides that the Regional Administrator may shorten or extend the post-closure care period "[a]ny time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure care period for a particular unit." Thus, for a hazardous waste management unit that has been closed in a partial closure, the Regional Administrator may change the post-closure care period before the final closure of the facility or during the post-closure period for that unit.

III.M.4.4 Security Provisions

- The following wording changes are suggested: (1) §§264.117(b)(1) and 265.117(b)(1) should be revised to say that the Regional Administrator may require continuation of the security requirements if hazardous wastes will remain after closure (instead of may); and (2) §§264.117(c) and 265.117(c) should be clarified to limit subsequent owners from disturbing the containment or monitoring systems or from excavating into hazardous waste zones.

The Agency disagrees that the condition for requiring continued security measures should be that hazardous wastes will remain after closure. The proposed regulation does not change the wording of the existing regulation precisely because it would fail to protect human health if it required continued security measures only when it was certain, rather than suspected, that hazardous wastes remained.

The Agency does not believe it is necessary to revise the language of §§264.117(c) and 265.117(c). The language of the final rule will prevent an owner or operator from excavating into hazardous waste zones unless he can demonstrate that such actions satisfy the criteria of §§264.117(c) and 265.117(c).

III.M.4.5 Increases or Decreases in Financial Responsibility

- If financial responsibility requirements are increased because of an extension of the post-closure period, then similarly, financial responsibility requirements should be reduced if the period is shortened.

The existing regulations in §§264.145 and 265.145 allow the owner or operator to request a reduction in the amount of financial assurance required if the cost estimate is reduced. As a result, if the length of the post-closure care period is reduced, the owner or operator could submit a request to the Regional Administrator to reduce the financial responsibility obligations.

III.M.5 Final Rule

The final rule specifies that post-closure care "must begin after completion of closure of the unit and continue for 30 years after that date" to clarify that the post-closure care period begins at closure of each hazardous waste disposal unit.

The final rule also clarifies that the Regional Administrator may shorten or extend the post-closure care period in accordance with all of the permit modification procedures in Parts 124 and 270 (and not only with the procedures of §270.41 as noted the proposed rule) or for interim status facilities in accordance with the procedures of §265.118(g). To provide maximum flexibility to the owner or operator and the Agency, the final rule allows a reduction or extension to the post-closure care period to be made at "any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period" instead of during a 60-day period preceding partial or final closure. The balance of the final rule was adopted as proposed.

III.N Post-Closure Plan
§§264.118(b) and (c), 265.118(a) and (c)

III.N.1 Synopsis of Previous Regulation

Sections 264.118(a) and 265.118(a) previously required owners or operators of hazardous waste disposal facilities to have post-closure plans. In addition, under §§264.228(c) and 264.258(c), permitted surface impoundments and waste piles that do not meet liner design standards are required to prepare contingent post-closure plans in case they must close as disposal facilities.

III.N.2 Summary of Proposed Rule

The Agency proposed to require explicitly in §§264.118(b) and 265.118(a) that those surface impoundments or waste piles not initially required to prepare contingent closure and post-closure plans under §§264.228(c) or 264.258(c) must submit a post-closure plan within 90 days of a determination that the unit or facility must be closed as a landfill. The Agency also proposed to clarify the contents of the post-closure plan.

Finally, the Agency proposed to require that the post-closure plan explicitly address the post-closure care activities and the frequency of these activities applicable to each disposal unit.

III.N.3 Rationale for Proposed Rule

Under the regulations in §§264.228(c) and 265.258(c), owners or operators of surface impoundments and waste piles that meet the liner design standards are not required to prepare contingent post-closure plans for the possibility that they may be required to close as landfills. Under §§264.228(b) and 264.258(b), however, such facilities could be required by the Regional Administrator to be closed as landfills if it is not possible to remove all contaminated soils at closure. Similarly, interim status surface impoundments and waste piles intending to remove all hazardous wastes at closure are not required under §§265.228 or 265.258 to prepare post-closure plans, although they may be required to close as disposal facilities.

The Agency was concerned that because such facilities would not have post-closure plans, the owners or operators would not be adequately prepared for post-closure care activities. As a result, the Agency proposed to require that all impoundments and waste piles, not otherwise subject to the post-closure plan requirements, submit post-closure plans for approval within 90 days after the determination that the unit would be used as a landfill.

The Agency also proposed to require that the post-closure plan explicitly address the post-closure care activities and the frequency of these activities applicable to each disposal unit at a facility.

III.N.4 Comments and Responses

The Agency received only one comment on this issue.

- The proposed language: "certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure . . . " should be changed to "certain surface impoundments and waste piles from which the owner or operator is required to or intends to remove or decontaminate wastes at closure" to have post-closure plans.

The language adopted by the Agency in the final rule satisfies the same purpose as the language suggested in the comment.

III.N.5 Final Rule

The final rule was promulgated as proposed with three clarifications. First, owners or operators of permitted facilities must comply with all Parts 124 and 270 procedures applicable to modifying the conditions of their permit. Second, the inadvertent reference in §265.118 to contingent plans required under §§264.228 and 264.258 has been dropped. It has been replaced with language requiring that surface impoundments and waste piles that intend to remove all hazardous wastes at closure must submit post-closure plans within 90 days after the determination that the unit must be closed as a landfill. Third, as discussed in Section III.F, the Regional Administrator may request modifications to the post-closure plans.

III.O Post-Closure Notices
§§264.119 and 265.119

III.O.1 Synopsis of Previous Regulation

Sections 264.119 and 265.119 previously required the owner or operator of a facility subject to post-closure care to submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Regional Administrator, within 90 days after final closure a record of the wastes disposed of within each cell or area of the facility. Sections 264.120 and 265.120 previously required that a notation be filed on the deed to the property indicating its use as a disposal facility. The notation was required to give notice that the plat and record of wastes had been filed with the appropriate local land use authority. Section 264.120(b) previously provided that if the owner or operator subsequently removed all hazardous wastes and residues, the notice in the deed could be removed or a notation could be added indicating all wastes had been removed. No parallel provisions existed under Part 265.

III.O.2 Summary of Proposed Rule

The Agency proposed to (1) consolidate the requirements to submit a record of waste and deed notice in §§264.119 and 265.119; (2) extend the notice requirements (i.e., record of waste and notice in deed) to partial closures; (3) reduce the deadline for submitting the deed notice and record of waste to 60 days after closure of each disposal unit; (4) require that owners or operators, if they remove hazardous wastes during the post-closure care period, request permission from the Regional Administrator to remove the notice from the deed or to add another notice to the deed indicating the removal; and (5) require the owner or operator to submit a certification to the Regional Administrator that the notation has been recorded along with a copy of the deed or other document in which the notice has been placed.

III.O.3 Rationale for Proposed Rule

The Agency considers the deed notation to be an important means of ensuring that prospective or subsequent owners of the property are informed of the presence of hazardous wastes, the existence of federal restrictions on land use, and the availability of the survey plat and waste record at the local land use authority. The Agency therefore proposed to require that the owner or operator record the notation on the deed. In addition, the owner or operator must submit a certification stating that the notation has been recorded and a copy of the recorded document to the Regional Administrator for review within 60 days after the certification of closure of each hazardous waste disposal unit. The Agency also proposed that the record of waste be filed with the local land authority and the Regional Administrator within 60 days after closure of each hazardous waste disposal unit. Because the information on how wastes have been handled should be readily available in the owner's or operator's operating record, the reduced deadline should not be burdensome.

The Agency clarified in §264.119(c) that an owner or operator of a permitted facility must request a modification to the post-closure permit in accordance with Part 270 requirements prior to removing hazardous wastes. For interim status facilities, the proposal added additional language in §265.119(c) to specify that if an owner or operator wishes to remove hazardous wastes, he must request the approval of the Regional Administrator to amend the approved post-closure plan prior to the removal of the hazardous wastes. In addition, the owner or operator must demonstrate compliance with the criteria in §§264.117(c) and 265.117(c) for post-closure use of property. Moreover, because the owner or operator would be conducting hazardous waste management activities, he must comply with all applicable generator requirements and with all post-closure permit conditions.

III.O.4 Comments and Responses

III.O.4.1 Problems with Deed Notice

- Carrying out this deed notice requirement may be difficult. In many, if not most, jurisdictions, the only way to accomplish a deed notation is to write a new deed by means of "sale" of the property to a straw party, who in turn reconveys it to the original property owner. Although there may be other documents that can be entered upon the title record in many jurisdictions, the method by which this can be done varies widely in local, county and State practice. EPA therefore should revise the deed notification provision to require it prior to any sale or transfer of the property, if such sale occurs prior to final closure of the facility, rather than at the time of partial closure.

- EPA should tailor the deed notification provision to require it prior to any sale or transfer of the property, should such sale occur prior to final closure of the facility, rather than at the time of partial closure of a land disposal facility. In this manner, the purpose of the deed notation requirement will be met, but paperwork burdens for the owner or operator, as well as for the Agency, will be substantially diminished.

- The notice in the deed should be provided at closure of the first hazardous waste management unit and not for each subsequent unit closure. Renotification and deed restrictive notation verification should be made at final closure.

- It seems sufficient that, upon final closure of all hazardous waste management units, a plat be filed and, if possible under State law, a notation to a deed be made. It seems unnecessary to follow this procedure at closure of each unit, since the continued active hazardous waste management alerts everyone to the existence of hazardous waste activity at the site.

The Agency agrees with those commenters who argued that filing a notice in the deed after closure of each hazardous waste disposal unit could impose significant burdens, especially if dummy sales were required, and would not be necessary to ensure that future purchasers of the land were aware of the land's prior uses. Filing a notice after the first partial closure of a hazardous waste disposal unit and amendment of the notice after closure of the last hazardous waste disposal unit should adequately alert all future owners of the land's prior use. Therefore §§264.119 and 265.119 have been revised to require that the notice in the deed and the certification to the Regional Administrator must be submitted within 60 days of closure of the first and last hazardous waste disposal unit.

The Agency believes that certification and copies of the deed notice should be furnished to the Regional Administrator. As part of its analysis, EPA surveyed local recorders of deeds in 20 different localities where hazardous waste disposal facilities had closed, in order (1) to determine how prior deed notices have been placed in the record and (2) to estimate the need for certification that the notation was recorded.[5]

Local recorders of deeds verified that procedures for recording a deed differ among jurisdictions. Some jurisdictions allow an instrument to be amended with a note on the first page that refers to the change. Other jurisdictions require a new deed to be recorded in the event of changes. Any document conveying or affecting a legal interest is recordable, provided in most jurisdictions that it is properly notarized.

---

[5] Post-Closure Notices in Deed, December 6, 1985, Memorandum to Carole J. Ansheles, EPA/OSW from Margaret Bracken, David Salvesen, and Craig Dean, ICF Incorporated.

A few recorders of deeds suggested that a restrictive covenant could be used as the required notice, and one instance was found in which that was done.

In general, recorders suggested that fees for recording would not be large, amounting to $3.00 to $5.00 for the first page and $1.00 to $2.00 for each additional page. Deeds are ordinarily quite short, (5-8 pages). In addition, lawyers' fees (for an estimated four hours of labor) would probably range from $100 to $500 for preparation of the deed and arranging the filing.[6] The Agency has therefore concluded that this requirement will not be burdensome or costly, even if rerecording is necessary.

The Agency's survey also suggested that the certification requirement is necessary to ensure that EPA can verify that notices are being placed in deeds. The Agency found it is generally difficult to obtain information by telephone from local recorders of deeds concerning particular sites. Because telephone verification of deed notations is not feasible, the Agency is convinced that copies of the deed notices should be furnished to the Regional Administrator as verification.

Finally, EPA concluded that certification is necessary to help ensure compliance with the requirement. The Agency's survey indicated that in many instances, notices for previously closed disposal facilities were not placed in deeds. The

---

[6] Revised first party and third party costs for Part 264 landfill closure and post-closure, July 31, 1985, Memorandum to Jim Craig, EPA/OSW from Shirley J. Smith, Pope-Reid Associates, Inc.

Agency believes that the requirement for certification, including a copy of the document in which the notice has been placed, will make it more likely that the notice will be placed in the deed as required.

III.O.4.2 Deadlines for Filing Notices

- Owners or operators should be required to submit post-closure notices to the local zoning or land use authority only after the facility is finally closed and not after each partial closure. Also the notice in the deed should be provided at closure of the first hazardous waste management unit and not for each subsequent unit closure. Renotification and deed restrictive notation verification should be made at final closure.
- There should be some flexibility in the timing of submittals of post-closure notices, especially if several units are being closed at about the same time. The regulations could require that the notices be provided to the Regional Administrator 30 days prior to a sale of the facility to ensure timely notice in the event of transfer of ownership. Otherwise, we recommend the notice be submitted within 180 days after closure of each unit.

The Agency disagrees that it would be a burden to submit the record of hazardous waste to the local land authority and Regional Administrator within 60 days after each partial closure of a hazardous waste disposal unit. Under §§264.73 and 265.73, an owner or operator must record and maintain in the facility operating record information on the types and quantities of hazardous wastes handled at the facility and the location of hazardous waste within each disposal area. Therefore, the owner or operator would simply be required to submit a copy of readily available records to the local land authority and the Regional Administrator. In light of these considerations, the final rule retains the requirement that within 60 days after the certification of closure of each hazardous waste disposal unit the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Regional Administrator, a record of the type, location, and quantity of hazardous wastes disposed of within that disposal cell or unit.

III.O.4.3 Notice from Subsequent Owner to Former Owner

- The subsequent owner or operator should be required to provide notice of any petition to remove hazardous wastes to the original facility owner or operator and generator of the hazardous wastes, if known.

The Agency believes that notice to a former owner or operator of a facility by a subsequent owner or operator that hazardous wastes may be removed can be a matter of private contractual arrangements between the two parties at the time the facility is sold. If the seller wishes to receive such notice, arrangements to that effect can be added to the contract of sale, and need not be specified by EPA.

III.O.4.4 Removal of Deed Notations

- The requirement that owners and operators seek the Regional Administrator's approval to remove deed notations will impose an undue burden on owners or operators attempting to transfer their property unless the Regional Administrator is required to act within a reasonable period such as 10 days.

The Agency believes that if an owner of the land upon which a hazardous waste management unit was located decides to sell or otherwise transfer the property, and wishes to do so after removing the notation on the deed, they can take steps to have the notice removed prior to the time of sale. Thus, the short deadline for action by the Regional Administrator suggested by this comment is not necessary.

III.O.4.5 Notice to Other Parties

- The owner/operator should notify the known holders of rights of way to lessen the chance of inadvertent breeching of closure containment systems. Notice should also be given to known holders of subsurface rights.

In the preamble to the proposed rule, the Agency requested comments on notifying parties with rights-of-way on property of the property's prior use to dispose of hazardous wastes. Although the Agency agrees that it is important to ensure that all potentially interested parties are aware of the prior use of land to dispose of hazardous wastes, it does not want to impose unnecessary burdens on owners or operators.

Frequently, parties with subsurface rights or rights-of-way will have obtained them through easements affecting a portion of the property. An easement is a right to use the land belonging to another person for a special purpose. Both surface rights-of-way, which are rights allowing one person to pass over the land of another, and subsurface rights for pipelines, cables, sewer lines, and mining, can be acquired by easement. The Agency therefore examined the question of the legal duties that landowners owe to the holders of easements to their property, including any duties to inform easement holders of changes to the property.

Easements can be created in several ways, including by an express grant from the landowner to the easement holder, by public condemnation, by implication, and by prescription (also known as adverse use). An express grant is generally a written agreement. It would probably be recorded, and therefore the holder of the easement would be informed by the deed notice of the presence of hazardous waste. Other forms of creation of easements, however, may not be in writing. An implied easement can be formed when a piece of land is subdivided, and an easement on one parcel is necessary for the reasonable use of another parcel. In this case, the deed notice would probably be effective to alert the easement holder of the presence of hazardous waste. Prescriptive easements are formed after several years (in most States 21 years) of continuous use of the land without the permission of the landowner. Sometimes a prescriptive easement is confirmed by a court order. Either the lengthy use or the order would probably provide notice. Finally, an easement may be formed by the process of legal condemnation. Most States allow condemnation, for example, by utility companies when necessary for the placement of pipes or transmission lines. Such an easement would be in writing and recorded, and would be created in such a way that the easement holder would become aware of the presence of hazardous waste. In addition, most States hold that a new owner of land has notice of easements on the land if the easements could have been detected by reasonable inspection, were recorded in the deed, or if the new owner had actual notice. A new owner or operator of a hazardous waste management facility would probably know of easements created by a previous owner.

Most States apparently do not require an owner to keep easement holders informed of changes to the land. In general, an owner of land is under no duty other than to abstain from acts inconsistent with the rights of the easement holder. The owner can use the land in any way that does not render the exercise of the easement unreasonable, difficult, costly, or burdensome. The owner is under no duty to take affirmative action, such as giving notice of the closure of a hazardous waste facility, if the closure would not interfere with the use of the easement.

The Agency believes, however, that several means already exist by which easement holders can be informed concerning the presence of hazardous waste besides notice from the owner or operator. First, if the hazardous waste management activities are present and obvious at the time the easement was granted or created, the easement holder will have actual notice. Second, an easement holder may refer to a deed or a plat of the property, and the deed or plat will contain information concerning the presence of hazardous waste. Finally, following closure, both the deed notice and necessary security provisions will provide warnings concerning the property. Therefore, the

Agency is not requiring notice by the owner or operator to holders of rights-of-way or subsurface rights.

III.O.5 Final Rule

The final rule revised the proposed rule slightly to require the record of the type, location, and quantity of wastes to be submitted "no later than" instead of "within" 60 days after closure of each disposal unit. The final rule also requires the owner or operator to place a notation on the deed or other instrument within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, rather than after closure of each unit. The balance of the rule was adopted as proposed.

III.P Certification of Completion of Post-Closure Care §§264.120 and 265.120

III.P.1 Synopsis of Previous Regulation

The previous regulation did not require an owner or operator to certify that post-closure care activities had been conducted in accordance with the approved post-closure plan.

III.P.2 Summary of Proposed Rule

The Agency proposed to require that an owner or operator submit to the Regional Administrator, within 30 days after completing the established post-closure care period, a certification signed by him stating that all post-closure care activities had been conducted in accordance with the approved post-closure plan. If the owner or operator partially closed more than one disposal unit prior to final closure and completed the post-closure care period for each unit at different times, he would be required to submit certifications subsequent to the completion of each post-closure care period.

The Agency requested comments on the desirability of requiring post-closure certifications on an annual or periodic basis (e.g., every five years).

III.P.3 Rationale for Proposed Rule

Appropriate post-closure care activities are essential to ensure the continued protection of human health and the environment after the termination of the post-closure care period. Requiring post-closure care certifications will help ensure that the facility has been adequately maintained during the post-closure care period.

III.P.4 Comments and Responses

Comments on post-closure care certifications ranged from opposing any certifications to supporting frequent certifications for each unit.

III.P.4.1 Periodic Certifications During the Post-Closure Care Period

- Annual or periodic certifications serve no meaningful purpose.
- There is no demonstrated need for annual or periodic certifications.

- An annual certification of post-closure is necessary.

- Certification at the time of completion of post-closure care activities is acceptable, but the need for annual or periodic certification has not been demonstrated. Section 231 of HSWA amends Section 3007 of RCRA to require inspections of facilities at least once every two years. Presumably, this requirement will apply to facilities with post-closure care permits. Furthermore, land disposal facilities will generally be required to carry out ground-water monitoring. These requirements should provide an ample check on the diligence with which a facility's owner or operator is conducting post-closure care.

- The permit, regulations, and statute all provide a duty to perform post-closure care as described in the plan. Presumably, USEPA will be making inspections during the post-closure care period and will be able to determine whether activities are being conducted in accordance with the plan. For a site with many partial closures, certification on an annual or periodic basis would simply be more paperwork.

- Post-closure certification should be required only at the end of the post-closure period. Annual reports and biannual facility inspections should provide enough information to verify proper post-closure care of individual units.

- Certification should not be required more often than every five years.

- Certification is necessary only at five-year intervals. Such certification should simply state that the records have been maintained verifying that post-closure care activities were conducted in accordance with the regulations.

- The post-closure permit and plan should contain specific activities and explicit milestones for reports so that monitoring for compliance can be done. We do not support the concept of no reports until final certification of closure.

- Certification should be required as often as post-closure inspections are done. For example, post-closure certification would be required every year for the first five years, then every five years after that.

- If closure has not been properly conducted, certification of completion of post-closure activities may be too late to prevent significant spread of contaminants. Monitoring results required as part of post-closure care should be submitted to the Agency on a periodic basis. At the same time, the owner/operator could certify that the post-closure activities are proceeding according to plan.

The Agency was unconvinced by those who argued for periodic certifications. Expanding post-closure care certification requirements would create an administrative burden for both the Agency and owners or operators, especially for facilities with many units with independent post-closure care periods. Site-specific cases in which periodic certifications might be desirable can be handled in other ways instead of imposing a requirement for all disposal units. For example, post-closure plans must include a detailed schedule of activities, which could incorporate additional certification requirements.

Although the Agency does not consider periodic certifications necessary, it regards certification upon completion of the post-closure care period essential for each unit. The Agency's reasoning is the same as for closure certification. Certification verifies that post-closure care activities have been performed properly; it also triggers release from financial responsibility requirements.

Certification at the end of the post-closure care period should not be difficult for owners or operators who have conducted post-closure care according to the post-closure plan. Adequate records should be maintained throughout the post-closure care period so that it is possible to certify that post-closure care activities were conducted according to the approved post-closure plan. If post-closure care activities are carefully documented, the only reason for not having full knowledge of post-closure care activities should be a transfer of ownership. In this case, a prudent new owner would require certification from the initial owner as a condition of sale, because the new owner will be fully responsible for later certifying the entire post-closure care period.

III.P.4.2 Certification by Independent Engineer or Agent

- Certification should be made by an independent professional engineer.
- If the Agency does require such certifications, it should allow the certifications to be made by a designated agent as well as the owners or operators because of the high probability that the owners or operators will contract for post-closure care.

The Agency agrees that the post-closure certifications should be performed by an independent registered professional engineer to be consistent with the closure certification. As discussed above in Section III.K for closure certification, the Agency believes it is critical to have an objective evaluation when determining whether or not to release the owner or operator from future post-closure care obligations. Therefore, consistent with the revisions concerning closure certifications (§§264.115 and 265.115) the final rule requires post-closure care certification by both the owner or operator and an independent professional engineer.

The Agency does not agree that certification should also be required from a designated agent of the owner or operator, if the owner or operator has contracted with a third party for post-closure care. Under the doctrine of respondeat superior the owner or operator will be legally responsible for the facility or unit, even if the care is performed by an agent. Therefore, the Agency has concluded that certification by the agent as well as by the owner or operator would be unnecessary. In contrast, certification is required from an independent professional engineer in addition to the owner or operator precisely because an independent engineer is not an agent of the owner or operator.

III.P.4.3. Extensions to Deadlines

- The Agency should allow extensions of the 30-day deadline for submitting post-closure certifications upon presentation of justification to the Regional Administrator.

The Agency recognizes that when the end of the post-closure period coincides for several units, additional time may be needed to prepare certifications. Therefore, the Agency increased the time period allowed for submitting the certification. The final rule provides that the certification must be submitted by an owner or operator no later than 60 days, rather than 30 days, after completion of the established post-closure care period.

III.P.5 Final Rule

The Agency in the final rule is adding two additional requirements to those included in the proposed rule. First, the post-closure care certification must be prepared by the owner and operator and an independent registered professional engineer to be consistent with closure certifications. Second the certifications must be submitted by registered mail. The final rule extends the deadline for filing the certifications to "no later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit," rather than within 30 days after completion. In addition, the final rule requires that documentation supporting certification be furnished to the Regional Administrator until the owner or operator is released from the post-closure care financial assurance requirements.

IV. STANDARDS FOR PERMITTED FACILITIES (PART 264) AND CONFORMING CHANGES TO INTERIM STATUS STANDARDS (PART 265) FINANCIAL ASSURANCE REQUIREMENTS (SUBPART H)

IV.A Cost Estimates for Closure and Post-Closure Care §§264.142(a), 264.144(a), 265.142(a), 265.144(a)

IV.A.1 Synopsis of Previous Regulation

The previous rules for preparing cost estimates did not specify whether cost estimates should be based on the cost to the owner or operator of supplying his own labor and equipment (first-party costs) or on the cost of hiring contractor labor and renting equipment (third-party costs). The previous rules also did not specify whether the cost estimates could include credit for salvage value from hazardous wastes or equipment.

IV.A.2 Summary of Proposed Rule

In the proposed rule, the Agency specified that closure and post-closure cost estimates must be based on the costs to the owner or operator of hiring a third party to perform closure or post-closure care activities. The Agency also specified that salvage value that might be realized from the sale of hazardous wastes, facility structures or equipment, land, or other assets associated with the facility could not be incorporated into the cost estimate for closure or post-closure care.

IV.A.3 Rationale for Proposed Rule

The purpose of financial responsibility is to ensure that funds are available to cover the costs of closure and post-closure care if the owner or operator goes bankrupt or for some other reason is unable to pay. If first-party costs are used as the basis for the cost estimate upon which financial assurance is based and an owner or operator declares bankruptcy or abandons the facility, adequate funds might not be available to cover the costs of closure or post-closure care if third-party labor and equipment must be hired. Because the cost estimates serve as the basis for determining the amount of financial assurance needed, the Agency concluded that only third-party costs are consistent with the overall objectives of the financial assurance requirements.

To further ensure that the cost estimate is always sufficient to cover the costs of closing the facility, the Agency proposed to disallow salvage value as a credit when calculating the cost estimates. The owner or operator would remain free to realize salvage value from hazardous wastes or equipment at closure, if possible. However, the Agency cannot be assured that hazardous wastes at the facility will have economic value or even that a third party will take the hazardous wastes at no charge at the time of closure. Similarly, the Agency cannot be certain that equipment or other assets at the facility can be sold. Finally, in many cases the Agency will not have a means of verifying the fair market value of allegedly salvageable goods. Therefore, the proposed rule prohibited the owner or operator from deducting credits for salvage value from the estimate of the costs of closure.

IV.A.4 Comments and Responses

IV.A.4.1 First-Party vs. Third-Party Costs

Commenters were sharply divided about the use of first-party or third-party costs, with a number of comments arguing for each approach.

- The proposed rule is correct that third-party costs should be used as the basis of cost estimates, and no credit should be allowed for potential salvage, recycle, or property sale.
- The third-party approach should be adopted. However, because most contractors do not have a scale of unit costs (e.g., cost to decontaminate a 10,000 gallon tank), there may be high variability in prices between contractors. The Agency should make available a unit cost scale which would allow evaluation of closure costs within the same framework.
- If a company has the in-house engineering, environmental, laboratory and other necessary disciplines, it should be allowed to use those disciplines at their internal costs rather than at outside consulting costs.
- EPA has not demonstrated a need to require third-party cost estimates.
- Use of third-party costs rather than first-party costs should not be required because contractors' estimates will be difficult to develop due to a shortage of contractors qualified to do such work. In addition, contractors' estimates may not be as accurate as estimates made by owners and operators with greater familiarity with facility characteristics.
- EPA has not provided sufficient explanation of what activities are included in closure that would be carried out by a third party. For example, must the final volume of wastes from an on-site disposal facility be disposed of off-site; must a third-party hauler transport the

waste; can waste shipped off-site be managed by a corporate affiliate of the first facility?

- Using third-party costs would substantially increase closure cost estimates as well as the costs of obtaining financial assurance.
- Using third-party costs would at least double the cost of closure to the regulated community.
- Estimates of closure costs should be based on either third-party costs or use of an owner or operator's own personnel and disposal capacity. A request for the use of the latter should be accompanied by documentation verifying the schedule of closure for each unit in question.

For the reasons stated in the Section IV.A.3 of this document, the Agency is convinced that a third-party requirement is necessary to satisfy the objectives of financial responsibility. The Agency believes that it will not be difficult to prepare third-party cost estimates. Such cost estimates can be developed using readily available cost estimating manuals. The Agency is preparing guidance on the preparation of cost estimates for closure that will present standard methods and checklists that will help to reduce variations among contractors concerning the costs of closure activities. The Agency also disagrees that a third-party requirement will result in less accurate estimates. An owner or operator has the option of preparing the estimates himself, relying on cost estimating manuals or personal experience, or of obtaining expert assistance in the preparation of cost estimates.

The Agency also does not agree that a third-party estimate will double the costs of closure. In a comparative analysis of first- and third-party costs,[7] the Agency concluded that the cost differences are not likely in many cases to be large. Few owners or operators are likely to have in-house expertise or the appropriate equipment available to conduct some of the more expensive activities, such as cover installation, and will therefore routinely hire a third party. Furthermore, the final rule provides that the owner or operator may use on-site disposal costs if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility. Because the cost of shipping hazardous wastes is a major portion of the total costs of closure, allowing the owner or operator to incorporate the costs of a third party disposing of hazardous wastes on-site will reduce the cost estimate significantly.

IV.A.4.2 Definition of Third Party

- The definition of third party is unclear. If waste is shipped off-site for disposal or treatment can it be managed at a facility owned by a corporate affiliate?

The Agency agrees the proposed rule is ambiguous. The final rule adds a definition of a third party to the regulation. A third party is defined as a party who is neither a parent nor a subsidiary of the owner or operator. This definition is consistent with the definitions in Subpart H in

---

[7] Revised First Party and Third Party Closure Costs For all the Hazardous Waste Treatment, Storage, and Disposal Technologies, September 13, 1985, to Jim Craig, EPA/OSW, from Shirley J. Smith, Pope-Reid Associates, Inc.

§§264.141 and 265.141, which specify who is eligible to provide a corporate guarantee for closure or post-closure care. These regulations specify that a parent is a corporation that directly owns at least 50 percent of the voting stock of the corporation that is the facility owner or operator; the latter corporation is the subsidiary.

IV.A.4.3 Third-Party Costs Only for Trust Fund Users

- The third-party cost requirement should apply only to those facilities whose owners must use the trust fund for financial assurance.
- Firms who use the financial test or corporate guarantee for financial assurance should not be required to use third-party costs.

EPA has concluded that cost estimates based on third-party costs should be required for owners or operators using all types of financial assurance mechanisms, including the financial test. The financial test is intended to ensure that an owner or operator who passes the test has the financial capability to establish one of the alternative forms of assurance should he later fail the test. The criteria of the test that are dependent on the size of the cost estimates are intended to provide an adequate margin of safety so that the alternative mechanisms can be established before any potential insolvency occurs. Because the other forms of financial assurance will be based on third-party costs, the multiples must also be based on third-party costs. An analysis[1] performed for the Agency of the financial strength of owners of TSDFs suggests that few firms able to pass the financial test using first-party costs would fail under a third-party cost estimating requirement.

IV.A.4.4 Salvage Value

- Salvage value of used equipment should be allowed to be included in the closure cost estimate when brokers or dealers for the used equipment can be identified.

Identifying brokers or dealers who routinely purchase used equipment does not indicate with the necessary degree of certainty that the owner or operator will in fact be able to dispose of the particular used equipment at the facility at closure. Therefore the Agency is continuing to disallow a credit for salvage value in the cost estimates. Furthermore, to avoid potential ambiguities, the Agency is also precluding the owner or operator from assuming that at closure a third party will take the hazardous wastes at no charge. The cost estimate must incorporate the costs of a third party disposing of the wastes either on-site if capacity is available or off-site.

---

[1] Comparison of Costs of a First vs. Third-Party Cost Estimating Requirement to Owners or Operators Using the Financial Test, November 4, 1985, Memorandum to Carole J. Ansheles, EPA/OSW, from John Bohnen, Liz Wallace, Robin Rodensky, ICF Incorporated.

IV.A.5 Final Rule

The proposed rule on the use of third-party costs for cost estimates is being adopted as final with several changes. First, the rule was amended to provide that the owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility. Second, the final rule defines third party as "a party who is neither a parent nor a subsidiary of the owner or operator." This definition is consistent with the language in Parts 264 and 265 Subpart H. Third, the final rule clarifies that the costs of disposing of the remaining hazardous waste at closure may not be incorporated in the estimate at zero cost. Finally, the rule adds the word "detailed" to the cost estimate requirement to help ensure that sufficient information is included in the cost estimate.

IV.B Anniversary Date for Updating Cost Estimates for Inflation
§§264.142(b), 264.144(b), 265.142(b) and 265.144(b))

IV.B.1 Synopsis of Previous Regulation

The previous regulation required owners and operators to update closure and post-closure cost estimates for inflation within 30 days after the anniversary of the date that the estimates were first prepared. The adjustment was required to be made using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product as published by the U.S. Department of Commerce in the Survey of Current Business.

IV.B.2 Summary of Proposed Rule

The proposed rule required owners or operators to revise their cost estimates within 60 days prior to the anniversary date of the establishment of their financial assurance mechanism. Cost estimates of a company using the financial test would have to be updated within 30 days of the end of its fiscal year. The Agency also proposed to allow firms to adjust cost estimates by either (1) recalculating the maximum costs of closure in current dollars, or (2) adjusting the cost estimate using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross National Product.

IV.B.3 Rationale for Proposed Rule

The purpose of the proposed change was to achieve a more adequate level of financial assurance. Under the previous rule, the financial instrument could have been updated before preparation of the most recent cost estimate, since the anniversary date for the instrument and the anniversary date for the cost estimate were not necessarily related. The proposed rule was intended to ensure that the instrument is always based on an updated cost estimate, since the cost estimate is required to be updated within 60 days prior to the anniversary date of the establishment of the financial instrument.

The Agency also proposed to allow owners or operators to update their estimates annually for inflation by either converting their cost estimates into current dollars or by using the most recent annual Implicit Price Deflator.

IV.B.4 Comments and Responses

IV.B.4.1 Anniversary Date

- The proposed revision concerning the date by which a facility must adjust its closure and, if applicable, post-closure estimates is desirable and should be adopted.
- All estimates should be updated around a common date, such as at the end of a firm's fiscal year, or around a "unified schedule."
- A "theoretical" anniversary date should be established based on the effective date of the regulations around which all firms should be required to prepare their cost estimates.

The Agency believes that updating the cost estimate within 60 days prior to the anniversary date of the establishment of financial assurance instruments will help ensure the adequacy of the financial assurance. Updating cost estimates around a common date would defeat this purpose in many cases because the update would not always be immediately prior to the anniversary of the financial mechanism. A unified schedule, although it would link the two anniversary dates, would impose an undue burden on those owners or operators who updated cost estimates or renewed their financial responsibility instrument just prior to the newly established unified date.

IV.B.4.2 Use of Current Dollars

- The option of recalculating cost estimates for closure and post-closure care using either the most recent Implicit Price Deflator for GNP or by calculating the cost using current dollars at the time of calculation is desirable and should be adopted.
- Recalculating cost estimates in current dollars may produce lower estimates and owners or operators may petition to get a reduction in their financial assurance mechanism. This process may not be completed in time to comply with the financial assurance anniversary date.

The Agency agrees that allowing owners or operators to recalculate cost estimates in current dollars is desirable. Such estimates will be based on the most current and accurate price information.

Although recalculations in current dollars may sometimes result in lower cost estimates, EPA does not anticipate delays in processing requests for reductions in financial assurance mechanisms. Sections 264.143(a), 264.143(b), 264.143(c), 264.143(d), 264.143(e), and the corresponding provisions under the Part 265 regulations provide that if the value of the trust fund, surety bond, letter of credit, or insurance policy is greater than the total amount of the current closure cost estimate, owners or operators may petition for a reduction of the amount following written approval from the Regional Administrator. The Agency recognizes that it is important to expedite requests to reduce financial assurance, and, as a matter of course, processes such petitions within a reasonable time period.

IV.B.4.3 Estimates Based on Real Closure Costs

- Current cost estimates should be required to reflect real closure costs as closely as possible.

The Agency agrees with commenters who pointed out that cost components may increase for reasons other than adjustments for inflation. Market forces may cause the prices of individual cost components to increase or decrease at different rates than the overall rate of inflation or deflation. The Agency therefore is allowing owners or operators to reflect, as closely as possible, "real closure costs" in their estimate by recalculating the cost estimate in current dollars. This option will require an owner or operator to separate the cost estimate into cost components and determine the current market price of each component in the same manner as the initial cost estimate was prepared. Because recalculating the estimates using current dollars may involve considerable time and effort, the final rule retains the option of adjusting the cost estimate using the most recent annual Implicit Price Deflator.

IV.B.5 Final Rule

The final rule is promulgated as proposed.

IV.C Revisions to the Cost Estimates
§§264.142(c), 264.144(c), 265.142(c), 265.144(c)

IV.C.1 Synopsis of Previous Regulation

The previous rule required owners or operators to revise their cost estimates whenever changes in the plans increased the costs of closure or post-closure care. Post-closure cost estimates were required to be revised only during the operating life of the facility. The regulations did not, however, specify deadlines for updating the cost estimates.

IV.C.2 Summary of Proposed Rule

The proposed rule added a 30-day deadline for revising the cost estimates if the change in plans increased the cost of closure or post-closure care. The Agency proposed to require owners or operators of permitted facilities, or interim status facilities with approved closure or post-closure plans, to modify their cost estimates within 30 days after the Regional Administrator had approved the change that increased the cost estimate. (The proposed §264.142 inadvertently retained the language of the previous rule, which required a revised estimate if a change in the plan "affected," i.e., increased or decreased, the estimate.) Similarly, for interim status facilities without approved closure or post-closure plans, the proposed rule required the cost estimates to be adjusted within 30 days of the change in the plans if the change increased the cost of closure or post-closure care.

IV.C.3 Rationale for Proposed Rule

Changes in the closure or post-closure plan could result in an increase in the costs of closure or post-closure care (e.g., off-site rather than on-site disposal of wastes at closure). If such changes are not incorporated into the cost estimates in a timely manner, the amount of financial assurance available will be inadequate. The proposed regulation would ensure the availability of adequate funds.

IV.C.4 Comments and Responses

- The 30-day deadline should only apply if the closure cost estimate increases. Reductions in the cost estimate should take place at the time that the estimate is adjusted for inflation.
- EPA should require all revisions to be reported within 30 days.
- A 30 day deadline is necessary to ensure that cost estimates are revised in a timely manner due to a change in the plans.

The Agency still agrees that revisions should be required within 30 days only if modifications to the closure or post-closure plans increase the closure or post-closure cost estimate. The Agency inadvertently used the word "affects" rather than "increases" in §264.142. The revised cost estimate also must be adjusted for inflation as specified in §264.142(b). While the owner or operator is not required to reduce the cost estimate if a plan changes, he is free to do so.

IV.C.5 Final Rule

The Agency has revised the final rule to correct the error in proposed §264.142(c) to clarify that the 30-day deadline for modifying cost estimates is applicable only when the modifications to the plans increase the costs of closure or post-closure care. The final rule also makes a minor change from "within 30 days" to "no later than 30 days."

IV.D Closure and Post-Closure Cost Estimates
§§264.142(c), 264.144(c), 265.142(c), and 265.144(c)

IV.D.1 Synopsis of Previous Regulation

Sections 264.144(c) and 265.144(c) previously required the owner or operator to revise the post-closure cost estimates during the operating life of the facility whenever a change in the post-closure plan increased the cost of post-closure care. The previous rule did not define the operating life of the facility or otherwise specify the period of time during which the cost estimates must be revised.

IV.D.2 Summary of Proposed Rule

The Agency proposed in §260.10 to define active life as the period from the initial receipt of waste until certification of final closure. (See Section II.A of this document for additional details.) To be consistent with this proposed definition, the Agency also proposed in §§264.144(c) and 265.144(c) to require that the post-closure cost estimate be revised during the active life of the facility instead of during the operating life whenever a change in the plan increased the costs of post-closure care. (Parallel changes were also proposed to §§264.142(c) and 265.142(c).) The proposed rule also required revisions to be made within 30 days of the change in the plans, as previously discussed in Section IV.C of this document.

IV.D.3 Rationale for Proposed Rule

Although the previous regulations did not define operating life, the Agency intended that post-closure financial assurance be adjusted as necessary until the facility was closed and post-closure care had begun. The proposed rule clarified this position.

Events that occur during the partial or final closure periods could affect the costs of post-closure care and must be accounted for by increasing the post-closure cost estimate. To ensure adequate assurance for post-closure care, the Agency proposed to require that the post-closure cost estimate be revised within 30 days after the Regional Administrator has approved a change in the previously approved post-closure plan. For interim status facilities without approved plans, the cost estimate must be revised within 30 days of the change in the plan.

IV.D.4 Comments and Response

No comments were received on this issue.

IV.D.5 Final Rule

The final rule adds the words "during the active life of the facility" to §§264.142(c) and 264.144(c) and 265.142(c) and 265.144(c) to clarify the period during which the cost estimate must be modified.

IV.E Trust Fund Pay-In Period
§§264.143(a)(3) and 265.143(a)(3)

IV.E.1 Synopsis of Existing Regulation

The existing Part 264 regulations require payments into the trust fund to be made over the term of the permit or over the remaining operating life of the facility, whichever is shorter. The maximum term of a permit is 10 years. For interim status facilities, the pay-in period is 20 years or the remaining operating life of the facility, whichever is shorter.

IV.E.2 Summary of Proposed Rule

In the proposed rule, the Agency solicited comments on the appropriateness of adjusting the pay-in period to reflect the shorter operating lives of some units at multiple process facilities.. Although no rule was proposed, the Agency solicited comments on approaches to handling the pay-in period for multiple process facilities.

IV.E.3 Rationale for Request for Comments

Although the trust fund may cover a number of units with different operating lives, the current requirement ties the pay-in period to the life of the facility rather than to the life of particular units. Therefore, the existing rule does not reflect the shorter operating lives of some units. The Agency wants to ensure that adequate funds will always be available to cover the costs of closing the entire facility in accordance with the approved closure plan if the owner or operator fails to do so. However, the Agency also is concerned that if the trust fund build-up period is based on the shortest operating life of a unit, owners or operators intending to partially close in the near future would face very high payments into the trust fund. Moreover, an accelerated build-up requirement could discourage partial closures.

IV.E.4 Comments and Responses

IV.E.4.1 Trust Fund May Not Assure Adequate Funds

- Companies using a trust fund to finance closure often may be inadequately covered by the amount in the trust fund if partial closure is conducted well in advance of the expected date of final closure. The owner or operator should be required, within 3 years, to place in the trust fund an amount equal to that required to close the hazardous waste management unit with the most expensive partial closure plan.

The regulations require financial responsibility to be equal to the maximum costs of closure at any time over the life of the facility. Requiring owners or operators to place into the trust fund within three years an amount equal to the cost of closing the unit with the most expensive partial closure plan could represent a significant financial burden to the regulated community. In the preamble to the January 12, 1981, regulations (46 FR 2823), the Agency discussed its rationale for allowing the trust fund as an option and for not requiring immediate full funding of the trust fund. The Agency still considers this argument to be valid. The financial burden associated with accelerating the trust fund payments could drive companies out of hazardous waste management and discourage new companies from entering the field. In addition, if faced with significantly higher costs, some marginal firms may be forced to close their facilities immediately. As a result, closure and post-closure obligations could be left to the public that might otherwise have been covered by a trust fund with a longer build-up period.

IV.E.4.2 Alternative Pay-In Periods

- Rather than establishing cost estimates for each unit at a multiple process facility, the pay-in period (for interim status facilities) should be based on 20 years or the shortest of the operating lives of the units, whichever is shorter. For permitted facilities, the pay-in period should be the term of the permit or the shortest of the operating lives of the units, whichever is shorter.
- The pay-in period should be equal to either the term of the facility's permit or the remaining operating life of the facility, whichever is shorter. For multiple process facilities, the pay-in period should be consistent with permit life; where different units at the same facility have separate permits, the pay-in schedule should be adjusted to reflect this fact.

The Agency determined that a pay-in period based on the shortest operating life of any of the units could reduce incentives to owners or operators to develop an operating strategy that would open and close units quickly. If the trust fund must be fully funded within the shortest operating life of any of the units, then owners or operators could be discouraged from performing partial closures, from accurately reporting the intended life spans of units, or from notifying the Agency of any partial closures that are performed. Since the Agency wishes to encourage partial closures, it is not adopting a pay-in period based on the shortest operating life of any of the units. Although basing the pay-in period on the shortest operating life would mean increased funds available for final partial and final closures, the Agency is concerned about the resulting economic impacts. The Agency will further examine this question before proposing a change to the current trust fund payment schedule.

The Agency agrees with the second commenter that if a facility has multiple units with separate permits the trust fund pay-in schedule should be adjusted to reflect the particular permit life. The existing regulations would allow this approach.

IV.E.4.3 Permit Life Should not Extend Beyond Closure

- Permits should not be issued for a term longer than the operating or expected life of a facility. The trust fund pay-in period should not extend beyond the expected closure date.

The maximum term of a permit is 10 years. If the Agency is aware that the remaining operating life of a facility is less than 10 years, the permit will be issued for the duration of the operating life rather than for 10 years. The regulation allows an owner or operator to close prior to the expiration of the permit, if he decides to do so after a permit has already been issued. Under the provisions of §264.112, an owner or operator using a trust fund must amend his closure plan and request a permit modification if he intends to change the estimated date of closure and close prior to the expiration of the permit.

IV.E.4.4 Payments Based on Financial Strength

- A permit condition should also be allowed requiring accelerated payments into the trust fund based on known financial weaknesses of the facility.

Because of the difficulties in setting criteria for what constitutes "known financial weaknesses," the Agency is not adopting this suggestion.

IV.E.5 Final Rule

After considering the comments, EPA has decided to retain the existing rule which provides that the pay-in period for permitted facilities is the term of the permit, or the remaining operating life of the facility, whichever is shorter. For interm status facilities, the pay-in period remains 20 years or the remaining operating life of the facility, whichever is shorter.

IV.F Reimbursements for Closure and Post-Closure Expenditures from Trust Funds and Insurance

§§264.143(a)(10) and (e)(5)
264.145(a)(11) and (e)(5)
265.143(a)(10) and (d)(5)
265.145(a)(11) and (d)(5)

IV.F.1 Synopsis of Previous Regulation

The previous closure and post-closure care trust fund and insurance provisions allowed an owner or operator, or any other person authorized to conduct closure or post-closure care, to request reimbursement from the trust fund or the insurance policy for expenditures for final closure and post-closure care by submitting itemized bills to the Regional Administrator. The Regional Administrator was required to instruct the trustee or insurer to make reimbursements if the activities had been in accordance with the approved plans, or otherwise justified. The Regional Administrator was allowed to withhold reimbursements if he determined that the total costs of closure would exceed the value of the trust or the insurance policy. No such withholding were allowed for post-closure care reimbursements.

IV.F.2 Summary of Proposed Rule

The proposed rule modified procedures for reimbursing expenditures from the trust fund or insurance, and specified provisions for handling reimbursements for partial closure activities. The Agency proposed to require that the Regional Administrator provide a detailed written statement of reasons for instructing the trustee or insurer not to make the requested reimbursements.

The proposed rule also allowed owners or operators to submit itemized bills to the Regional Administrator for partial closure activities, using the same procedures used in submitting bills for final closure activities. Before allowing reimbursement for partial closure, however, the Regional Administrator was required to determine if the activities were in accordance with the closure plan or otherwise justified, and if sufficient funds were still remaining in the trust fund or the insurance policy to cover the costs of closing the "maximum extent of operation of the facility." Similarly, the owner or operator could be reimbursed for post-closure care activities, assuming the activities were in accordance with the approved post-closure plan. If the expenditures were approved, the Regional Administrator instructed the trustee or insurer, within the allotted 60-day period, to reimburse those amounts that the Regional Administrator specified in writing.

IV.F.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that any decision by the Regional Administrator to withhold reimbursements presumably is an administrative determination that the expenditures are either unjustified or not in accordance with plans, or that closure or post-closure care is incomplete. They contended that such an administrative determination must be supported by a written explanation that could then serve as a record for review of the determination. The Agency agreed with the litigants, and developed the proposed rule to ensure that the owner or operator would obtain a written explanation of why the Regional Administrator instructed the trustee or insurer not to reimburse the owner or operator for partial or final closure or post-closure care expenditures.

The proposed amendment clarifying partial closure reimbursement procedures was intended to ensure the adequate availability of funds for performing final closure. Under the provisions of §§264.142(a) and 265.142(a) the cost estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan. Therefore, the Regional Administrator should not approve reimbursement for partial closure if the remaining financial assurance would be insufficient to satisfy this condition.

IV.F.4 Comments and Responses

IV.F.4.1 Reimbursement Based on Maximum Cost of Closure

- The "maximum extent of operation of the facility" remaining after partial closure is irrelevant to the issue of reimbursement. The Regional Administrator should consider the estimated cost of remaining closure activities in evaluating when the remaining funds in the trust fund are adequate.

The Agency agrees with this commenter that the language of the proposed rule was ambiguous and is clarifying it in the final rule. The purpose of the cost estimate and financial responsibility requirements is to ensure that adequate funds are available to cover the maximum costs of closure over the remaining life of the site. It is the Agency's intention to allow reimbursement for partial closures as long as they are consistent with this objective. The intent of this rule is to ensure that sufficient funds remain available after performing partial closures to finance final closure activities in accordance with the closure plan.

IV.F.4.2 Withholding Trust Fund Payments

- Withholding payments from a trust fund should only occur for significant violations of the closure plan and permit requirements.

The Agency agrees that in most cases withholding payments from a trust fund should occur only for significant violations of the closure plan and permit requirements. The Agency does not intend to place an undue burden on owners or operators for minor or paperwork violations of the closure plan and permit requirements. The current regulations allow the Regional Administrator to authorize reimbursements if the expenditures "are in accordance with the approved plan or otherwise justified." Therefore, the regulations allow the Regional Administrator to authorize reimbursements, despite minor violations, if the expenditures are otherwise justified.

IV.F.4.3 Automatic Reimbursements

- EPA should establish a policy that if no determination is reached within 60 days of the request of reimbursement, reimbursement should be automatic.

The Agency does not agree with the suggestion that a policy should be established to make payment authorization automatic if no determination is reached within 60 days of the request of payment. Because of the complexity of certain closure activities and the importance of ensuring that the activities adequately protect human health and the environment, the Agency considers it inappropriate to allow automatic authorization if the 60-day limit is not met. By not allowing payments to be made until a determination is reached, the Agency is assuring that funds will still be available to finance any additional necessary partial or final closure activity or post-closure care activities.

IV.F.4.4 Trust Fund as Collateral

- The Agency should allow an owner or operator to borrow money to cover closure costs using the trust fund as collateral, or should allow payments from the fund for partial as well as final closure.

The Agency does not agree that an owner or operator should be allowed to borrow money to cover closure costs using the trust fund as collateral. The purpose of financial responsibility is to ensure the availability of adequate funds for performing closure activities in accordance with the approved plan. The terms of the trust specify that it is created to provide financial assurance, and that no third party is to have access unless directed by the Trustee as provided in the agreement. The Agency, therefore, does not believe that the trust as currently established could be used by the owner or operator as collateral. Reimbursements may be made from the trust fund, as discussed above, for partial closures if the required conditions are met.

IV.F.4.5 Limitations of Amount of Trust Fund Withheld

- The amount that the Regional Administrator may withhold should not exceed 20 percent of the total fund unless the Regional Administrator demonstrates that a higher amount is required.

The Agency addressed the issue of establishing a limit on the amount that could be withheld in the April 7, 1982, rulemaking (47 FR 15040). The Agency concluded at that time that, rather than setting an exact limit on the amount that may be withheld, reliance on the prudence and discretion of the Regional Administrator would allow more precise responses to particular situations. The new requirement for a written statement of reasons by the Regional Administrator strengthens this approach, and the Agency continues to support it.

IV.F.5 Final Rule

After analyzing the comments received on the issue of reimbursement, the Agency has promulgated the final rule substantially as proposed. The final rule clarifies that the owner or operator may be reimbursed for partial closure only if the remaining funds in the trust fund or insurance policy are sufficient "to cover the maximum costs of closing the facility over its remaining operating life."

IV.G Final Administrative Order Required

§§264.143(b)(4)(ii)
264.145(b)(4)(ii)
265.143(b)(4)(ii)
265.145(b)(4)(ii)

IV.G.1 Synopsis of Previous Regulation

The previous regulations provided that an owner or operator of a permitted or interim status facility may satisfy the financial assurance requirements for closure and/or post-closure care by obtaining financial guarantee surety bonds. The rule required that the surety bond guarantee that the owner or operator would fund a standby trust fund in an amount equal to the penal sum of the bond within 15 days after an order to begin closure was issued by the Regional Administrator or by a U.S. district court or other court of competent jurisdiction. The surety became liable on the bond when the owner or operator failed to perform as guaranteed by the bond.

IV.G.2 Summary of Proposed Rule

The proposed amendment provided that the surety bond for assurance of closure or post-closure care must guarantee that the standby trust fund will be funded within 15 days after an administrative order to begin closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction. The Agency retained the requirement that the surety must fund the standby trust fund if the owner or operator fails to provide alternative financial assurance upon receiving notice of cancellation of the bond. The proposal also adds two words for clarification: closure is final closure; and the Regional Administrator's order is an administrative order.

IV.G.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that expenditures of the funds cannot be compelled by law until the order to begin closure is a final order, and that there is no need to transfer money to the standby trust fund until that time. A final order is, in general, final Agency action. In response to the ACCI petitioners, the Agency proposed to provide additional procedural protection to owners or operators by requiring that a final administrative order is necessary before action by the surety can be required. A final administrative order refers to a final EPA or State determination and is not intended to include possible judicial review.

IV.G.4 Comments and Responses

- In some states, several months may expire during the administrative appeal process before a case goes to court. During this time, an open site will be accepting precipitation and discharging hazardous constituents to the environment. In order to obtain rapid action, the owner or operator should be required to post funds for possible forfeiture as a pre-condition to handling hazardous waste. Such "bonding" is a common concept used in sanitary landfill permitting, daily construction, and public office holding.

As noted above, a final order is intended to be final EPA or State administrative action, and does not include possible judicial review. Therefore, the standby trust fund will be funded within 15 days after an administrative order to begin closure issued by the Regional Administrator (or equivalent State official) becomes final. The Agency does not believe another bond is necessary to ensure that funds are available in case there is an appeal process. Even payment of the bonds suggested by the commenter might be delayed by legal action.

IV.G.5 Final Rule

The Agency is adopting the rule as proposed.

IV.H Final Administrative Determination Required

§§264.143(c)(5) and (d)(8),
264.145(c)(5) and (d)(9),
265.143(c)(8),
265.145(c)(9)

IV.H.1 Synopsis of Previous Regulation

The previous Part 264 regulations provided that an owner or operator may demonstrate financial assurance for closure and/or post-closure care by obtaining a surety bond guaranteeing performance. (For reasons outlined in the preamble to amendments to the financial assurance requirements (46 FR 2825, January 12, 1981), a surety bond guaranteeing performance is not allowed under interim status.) Under Parts 264 and 265, an owner or operator may satisfy the financial assurance requirements by a closure and/or post-closure care letter of credit. Under the terms of these mechanisms, the surety or bank becomes liable on the bond or letter or credit obligation when the owner or operator fails to perform closure or post-closure care as guaranteed by the bond or letter of credit.

The previous regulations for permitted facilities provided that, after a determination made pursuant to Section 3008 of RCRA that the owner or operator had failed to perform final closure or post-closure care in accordance with the closure or post-closure plan and other permit or interim status requirements, under the terms of the bond the surety would perform final closure or post-closure care as guaranteed by the bond, or would deposit the amount of the penal sum into the standby trust fund. Similarly, following a like determination pursuant to Section 3008 of RCRA, the Regional Administrator could draw on the letter of credit.

IV.H.2 Summary of Proposed Rule

EPA proposed to add the provision that a "final" determination under Section 3008 of RCRA be required before the surety must act under the Part 264 regulations or the Regional Administrator may draw on a letter of credit under both Parts 264 and 265 regulations.

IV.H.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that before the surety must perform closure or post-closure care or deposit the sum of the bond into a trust fund, or the Regional Administrator may draw on a letter of credit, a final determination must have been made. The Agency agrees that a final determination is required.

IV.H.4 Comments and Responses

No comments were received on this proposed rule.

IV.H.5 Final Rule

The Agency has adopted the rule as proposed, with three changes. First, the final rule states that the surety will become liable and the letter of credit may be drawn upon after a final "administrative" determination. This change is intended to clarify the Agency's intent to make sureties and banks liable after an administrative rather than a judicial determination. Second, the final rule clarifies that the surety or bank issuing the letter of credit is liable if the owner or operator fails to perform closure or post-closure care in accordance with the "approved" plans. Third, §265.145 deletes language inadvertently included in §265.145(b)(5) which refers to provisions applicable to surety bonds guaranteeing performance. Performance bonds are not allowed for interim status facilities.

IV.I Cost Estimates for Owners or Operators Using the Financial Test or Corporate Guarantee Must Include UIC Cost Estimates for Class I Wells

§§264.143(f)(1), 264.145(f)(1),
265.143(e)(1), 265.145(e)(1)

IV.I.1 Synopsis of Previous Regulation

The previous regulations specified the criteria that had to be satisfied for an owner to use the financial test to demonstrate financial responsibility. For facilities being covered by the financial test for closure and/or post-closure care and liability coverage, the owner or operator was required to have net working capital and tangible net worth each at least six times the sum of the closure and/or post-closure cost estimates and/or annual aggregate liability coverage requirements of the facilities being covered by the test. The financial test criteria did not take into account the costs to an owner or operator of closing hazardous waste underground injection control (UIC) facilities subject to the requirements of 40 CFR Part 144 et seq. (i.e., the costs of plugging and abandonment) if applicable. Plugging and abandonment are the technical measures taken to close and permanently discontinue operations at an underground injection well under the requirements of 40 CFR Parts 144 and 146.

IV.I.2 Summary of Proposed Rule

EPA established financial responsibility requirements in 40 CFR Part 144 for the owners or operators of Class I UIC facilities. These requirements parallel the requirements established in 40 CFR Parts 264 and 265, including the same set of criteria for passing the financial test. The proposed rule required owners or operators of a hazardous waste treatment, storage, or disposal facility and of a UIC facility to include estimates of the plugging and abandonment costs of their Class I UIC facility when calculating the sum of the cost estimates for the RCRA financial test. The proposal amended §§264.141(f) and 265.141(f) by defining "current plugging and abandonment cost estimate" as the "most recent of the estimates prepared in accordance with §144.62."

IV.I.3 Rationale for Proposed Rule

Under the previous rule the financial test criteria were applied to the UIC and RCRA financial tests separately. Thus, a firm able to pass the tests individually might not have had the financial strength to pass the test if the cost estimates were combined. The Agency has estimated plugging and abandonment costs to range from $10,000 to $100,000 per well, depending on hydrogeologic factors. Large on-site facilities may have as many as five to ten wells, with associated plugging and abandonment costs potentially totalling as much as $1,000,000. These costs could considerably increase the size of the cost estimate otherwise used for the RCRA financial test. Because the objective of both regulatory programs is to ensure that funds are available to prevent threats to human health and the environment, it is especially important to ensure that a firm using the financial test, and not otherwise demonstrating that funds will be available if needed, has the financial strength to take the required actions if UIC plugging and abandonment and RCRA closure and/or post-closure care activities are required simultaneously.

IV.I.4 Comments and Responses

IV.I.4.1 Difficulties in Reviewing UIC Cost Estimates

- UIC closure cost estimates should be included in the RCRA financial test demonstration, but reviewing the adequacy of UIC closure cost estimates may be difficult.

The Agency recognizes that reviewing the adequacy of UIC closure cost estimates will be difficult, and is therefore preparing a guidance manual to address this problem.

IV.I.4.2 Cross-Referencing System for UIC and RCRA Facilities

- A reference system should be designed to allow for the costs to be addressed under one regulation and referenced under another.

The Agency believes that the commenter who suggested the incorporation of a referencing system may have misinterpreted the proposed rule. The proposed rule is not establishing additional requirements for UICs. It is only requiring that the cost estimates for Class I UIC wells be included when using the financial test to demonstrate financial assurance under Subpart H. Therefore, the Agency does not believe a referencing system is necessary.

IV.I.4.3 Avoidance of Duplicative Requirements

- Insurance requirements to cover the UIC closure costs should not be required to be duplicated for both Subparts.

The proposed regulation does not establish duplicate insurance requirements to cover Class I UIC closure costs. As stated above, the rule only requires that the plugging and abandonment costs for the wells be included as an element of the financial test.

IV.I.5 Final Rule

After consideration of the comments, the Agency has decided to promulgate the final rule as proposed.

IV.J Cost Estimates Must Account for All Facilities Covered by Financial Test or Corporate Guarantee
§§264.143(f)(2), 264.145(f)(2),
265.143(e)(2), 265.145(e)(2)

IV.J.1 Synopsis of Previous Regulation

The previous regulation specified that the phrase "current closure and post-closure cost estimates" as used in subparagraph (1) of §§264.143(f), 264.145(f), 265.143(e), and 265.145(e) refers to the cost estimates required to be shown in paragraphs 1 through 4 of the letter from the owner's or operator's chief financial officer (§264.151(f)). These cost estimates are used in determining whether an owner or operator can pass the financial test for demonstrating financial assurance.

IV.J.2 Summary of Proposed Rule

The proposed rule made a minor change, adding that the phrase "current plugging and abandonment cost estimates" as used in §§264.143(f)(1), 264.145(f)(1), 265.143(e)(1), and 265.145(e)(1) refers to the UIC cost estimates required to be shown in paragraphs 1 through 4 of the letter from the owner's or operator's chief financial officer (§144.70(f)).

IV.J.3 Rationale for Proposed Rule

The addition in the proposed rule was made to be consistent with the proposed inclusion, described in the preceding Section IV.I of this document, of UIC plugging and abandonment costs in calculating the sum of the closure and post-closure cost estimates for the financial test under Parts 264 and 265.

IV.J.4 Comments and Responses

The Agency received no comments relevant to the proposed rule.

IV.J.5 Final Rule

The Agency adopted the rule as proposed.

IV.K Release of the Owner or Operator from the Requirements of Financial Assurance for Closure and Post-Closure Care §§264.143(i), 264.145(i), 265.143(h), 265.145(h)

IV.K.1 Synopsis of Previous Regulation

Sections 264.143(i) and 265.143(h) previously required the owner or operator, when closure was completed, to submit certifications to the Regional Administrator from himself and from an independent registered professional engineer that closure had been accomplished in accordance with the closure plan. Within 60 days after receiving the certifications, the Regional Administrator was required to notify the owner or operator that he was no longer required to maintain financial assurance for closure of the particular facility, unless the

Regional Administrator had reason to believe that closure was not in accordance with the approved closure plan. Similarly, when an owner or operator completed all post-closure care requirements in accordance with the post-closure plan to the satisfaction of the Regional Administrator, the Regional Administrator would notify the owner or operator that he was no longer required to maintain financial assurance for post-closure care.

IV.K.2 Summary of Proposed Rule

The Agency proposed to add a provision that the Regional Administrator must provide a detailed written statement to the owner or operator of reasons that closure or post-closure care had not been in accordance with the approved plans.

IV.K.3 Rationale for Proposed Rule

A detailed written statement from the Regional Administrator would provide the owner or operator with necessary information to correct deficiencies in the closure or post-closure care process.

IV.K.4 Comments and Responses

- It is unfair for an owner or operator to have to carry the full weight of financial assurance for closure, after it is completed, while the Agency deliberates about whether it is adequate.

It is essential that financial assurance be maintained until the Regional Administrator determines that closure or post-closure care has been adequate. If, after receiving the certification of closure, the Agency concludes that final closure was not performed in accordance with the approved closure plan, the proposed rule ensures that funds will be available to correct deficiencies in the closure or post-closure process. The Agency needs time to conduct inspections and review the documentation relating to closure and post-closure activities. In particular, it is essential to ensure that closure is done correctly to prevent damage to human health and the environment. Owners or operators using trust funds and insurance will already have received reimbursements for closure activities, assuming itemized bills were submitted to the Regional Administrator and the activities were in accordance with the approved plan. In the case of post-closure care reimbursements, the owner or operator will have already been reimbursed for the majority of costs or have reduced the amount of financial assurance over the term of the post-closure care period.

IV.K.5 Final Rule

The Agency adopted the final rule as proposed.

IV.L Period of Liability Coverage §§264.147(e), 265.147(e)

IV.L.1 Synopsis of Previous Regulation

The previous regulations required owners or operators to provide continuous liability coverage for a facility until certifications of closure of the facility, as specified in §§264.115 or 265.115, were received by the Regional Administrator.

IV.L.2 Summary of Proposed Rule

To clarify that liability coverage is required until certifications of final closure have been received by the Regional Administrator, a conforming change was proposed to §264.147(e). The preamble to the proposed rule stated that the same conforming change was being made to §265.147(e), but the text of that change was inadvertently omitted from the proposed rule.

IV.L.3 Rationale for Proposed Rule

The existing liability requirements specify that an owner or operator of a TSDF or a group of TSDFs must maintain sudden coverage and, if he owns at least one facility with a disposal facility, nonsudden coverage as well. The amount of liability coverage required does not vary by the number of hazardous waste management units open at the facility, size of facility, wastes handled, potential risks, or other factors, since it is required on a per firm basis. Therefore, the Agency does not consider it appropriate to alter the amount of financial assurance required for sudden or nonsudden accidental liability coverage as a result of partial closures. The proposed amendment clarifies this intent by rewording the language to state that the owner or operator will be released from the liability requirement after "final closure."

IV.L.4 Comments and Responses

IV.L.4.1 Liability Coverage Not Required During the Post-Closure Care Period

- The current wording implies that environmental impairment liability (EIL) insurance is not required for the post-closure care period; the Agency should clarify this implication.

The Agency does not believe that the wording of the proposed rule is ambiguous about the applicability of EIL coverage during the post-closure care period and does not agree that there is a need to further clarify this in the final rule. The regulations have never required liability insurance during the post-closure care period.

IV.L.4.2 Availability of EIL Insurance

- The Agency should address the real potential of the non-availability of EIL insurance coverage.

The Agency addressed questions of insurance availability in a separate announcement in the Federal Register (see 50 FR 33902 (August 21, 1985)).

IV.L.4.3 Applicability of Liability Coverage Requirements

- Sudden and nonsudden liability coverage should be required until final closure has been certified.
- The provisions for the release of owners or operators from Subparts F, G, and H requirements should be consistent. The language in §264.145(i) requiring that the Regional Administrator be satisfied that the post-closure

> care activities have been conducted in accordance with the approved plan as a condition of release from financial assurance should be included in §264.147(e) as well as in §264.115 since there is an impact on Subpart F requirements as well.

The language in §§264.147(e) and 265.147(e) required insurance to continue until the proper certifications, as specified by §§264.115 and 265.115, were received by the Regional Administrator. Sections 264.143(i), 264.145(i), 265.143(h) and 265.145(h) required the owner or operator to maintain financial responsibility for closure until the Regional Administrator approved the certifications and notified the owner or operator he was released from financial assurance obligations.

The Agency agrees with the commenter that the provisions releasing the owners or operators from financial assurance requirements for closure and post-closure care and liability coverage should be consistent. The Agency also believes it is important to ensure that insurance policies remain effective until the Regional Administrator has determined that closure has been performed in accordance with the approved closure plan. The Agency is therefore revising §§264.147(e) and 265.147(e) to require that coverage must be maintained until the Regional Administrator notifies the owner or operator in writing that he is no longer required to maintain financial assurance for liability coverage. In addition, the final rule provides that the Regional Administrator will notify the owner or operator within 60 days after receiving the closure certifications. This language is now consistent with the provisions for releasing owners or operators from closure/post-closure financial assurance in §§264.143(i), 264.145(i), 265.143(h) and 265.145(h).

IV.L.5 Final Rule

After analyzing the comments, the Agency is revising the final rule in §§264.147(e) and 265.147(e) to be consistent with the language in §§264.143(i), 264.145(i), 265.143(h), and 265.145(h). The final rule states that within 60 days after receiving certifications that final closure has been completed in accordance with the approved closure plan, the Regional Administrator will notify the owner or operator in writing that he is no longer required to maintain liability coverage for the facility, unless the Regional Administrator has reason to believe closure has not been performed in accordance with the approved closure plan.

IV.M Wording of Instruments
§264.151

IV.M.1 Synopsis of Previous Regulation

Section 264.151 specified the wording of the financial assurance instruments allowed under §§264.143, 264.145, 265.143, and 265.145. In particular, §264.151(b) specified the wording for surety bonds guaranteeing payment into a standby trust fund and §§264.151(f) and (g) specified the wording for a letter from the chief financial officer.

IV.M.2 Summary of Proposed Rule

The Agency proposed to amend §264.151(b) to specify that the surety guaranteeing payment into a trust fund is responsible for funding the standby trust fund only when an order to begin closure is a final order. The Agency also proposed to amend §§264.151(f) by adding additional paragraph (f)(5) requiring owners or operators using the financial test for closure and/or post-closure care to list the cost estimates associated with their Class I UIC facilities as required by the Part 144 financial responsibility requirements. The proposal inadvertently failed to propose the same language for §264.151(g) which is used by owners or operators using the financial test for both closure/post-closure care and liability coverage.

IV.M.3 Rationale for Proposed Rule

The Agency proposed the above two changes in order to ensure consistency with changes being made to other sections of the regulations (e.g., changes to §§264.143(f)(2), 264.145(f)(2), 265.143(e)(2), and 265.145(e)(2)), which were discussed in Section IV.J and IV.I of this document.

IV.M.4 Comments and Responses

IV.M.4.1 Additions to Wording of Instruments

- Section 264.151(b), which specifies the wording of the surety bond guaranteeing payment into a trust fund, must include reference to 265.143(b), which specifies the requirements for owners or operators of interim status facilities to satisfy financial assurance through establishing a trust fund.

- Reference to the UIC facility dollars in the financial test should also be referenced in subsection (g) of §264.151 because several facility operators use the §264.151(g) financial test package wording.

The Agency agrees with the commenters that these sections should be amended and the final rule revises the referenced sections.

IV.M.4.2 Proposed Addition to Corporate Guarantee

- Because many TSDFs that use the financial test also use the corporate guarantee, the language in §264.151(f) should be modified to read: "This firm is the owner or operator or guarantor of the following UIC facilities ..." (proposed language is underscored).

The Agency anticipates that owners or operators of a TSDF are more likely to be the recipients of a guarantee from the parent corporation rather than guarantors themselves. Therefore, the commenter's suggested language to include "or guarantor," is not being added to avoid confusion with cases where owners or operators of TSDFs use the corporate guarantee, but are not guarantors.

IV.M.5 Final Rule

In response to the comments received, the Agency is revising the final rule to include a reference to §265.143(b). The final rule is also amending the wording of the liability requirements specified in §264.151(g) by adding a new paragraph (g)(5). That new paragraph requires owners or operators using the financial test for both closure and post-closure care and liability insurance to list the cost estimates associated with their Class I UIC facilities. This addition was made since many TSDF owners using the §264.151(g) financial test wording for closure and post-closure care and liability coverage also own UIC facilities.

V. INTERIM STATUS STANDARDS (PART 265)

This part of the document discusses changes that were made to Part 265 (for interim status). If parallel changes were made to both permitted and interim status standards, those changes were discussed in Parts III and IV of this document.

V.A Applicability of Requirements
§265.110

V.A.1 Synopsis of Previous Regulation

Section 265.110(b) provided that §§265.117 through 265.120 of Subpart G, which concerned post-closure care, applied "to the owners and operators of all hazardous waste disposal facilities."

V.A.2 Summary of Proposed Rule

In the proposed rule, the Agency clarified the applicability of §§265.117-265.120, by specifying that they applied to:

> "(1) All hazardous waste disposal facilities; and
>
> (2) Piles and surface impoundments for which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in §§265.228 or 265.258."

V.A.3 Rationale for Proposed Rule

In order to clarify the applicability of §§265.117 through 265.120, the Agency proposed in §265.110(b) that the post-closure care requirements apply to the owners or operators of all hazardous waste disposal facilities and to piles and surface impoundments for which the owner or operator intends to remove the wastes at closure but is required to close the facility as a landfill. Surface impoundments and waste piles from which all wastes and waste residues, contaminated containment system components, contaminated soils and subsoils, and other specified contaminated components or residues are removed at closure are not required to comply with post-closure care requirements. However, surface impoundments and waste piles that are unable to remove all hazardous wastes are required under §§265.228 and 265.258 to be closed as landflls and must comply with the post-closure care requirements. The proposed rule clarified the applicability of the post-closure standards in §§265.117-265.120 to such surface impoundments and waste piles.

V.A.4 Comments and Responses

The Agency received no comments on this proposed rule.

V.A.5 Final Rule

The final rule is promulgated as proposed, with the addition of the word "waste" to the beginning of §265.110(b)(2) so that the subsection refers to "waste piles."

V.B Waste Pile Closure Requirements Included by Reference in the Closure Performance Standard
§§265.111 and 265.112

V.B.1 Synopsis of Previous Regulation

Section 265.111 of the previous rule contained a general closure performance standard. In addition, §265.112(a)(1) required the closure plan to include a description of how and when the facility would be partially closed and finally closed. Finally §265.112(d) required the Regional Administrator to ensure that an approved closure plan addressed the applicable closure requirements in the process-specific regulations (§§265.197, 265.228, 265.280, 265.310, 265.351, 265.381 and 265.404).

V.B.2 Summary of Proposed Rule

EPA proposed to amend §265.111 by adding subsection (c), which incorporated all the process-specific technical standards into the closure performance standard of §265.111. The references to the process-specific standards in §265.112(a)(1) were replaced with a single reference to §265.111 in §265.112(b)(1). The Agency also proposed to amend the references to the process-specific regulations in §265.112(d) to include a citation of §265.258, which establishes closure requirements for waste piles.

V.B.3 Rationale for Proposed Rule

The Agency proposed to incorporate into the general performance standard references to the specific technical closure requirements to ensure that owners or operators comply with both the general and all applicable process-specific standards. This change was discussed in more detail in Section III.A of this background document.

Closure requirements specific to waste pile facilities in §265.258 (47 FR 32368, July 26, 1982) were promulgated after the January 12, 1981, promulgation of the Subpart G regulations, and thus were not referenced in Part 265 Subpart G.

V.B.4 Comments and Responses

No commenter addressed whether the process-specific requirements for waste piles should be added to the interim status closure performance standard. On the general question of adding process-specific standards to the closure performance standard, the comments that the Agency received with respect to the parallel amendment to §264.111 were also considered relevant to §265.111, and were discussed previously in Section III.A of this document.

V.B.5 Final Rule

The Agency adopted the proposed rule, with two changes: (1) as discussed in connection with §§264.111 and 264.112, the proposed wording for the closure performance standard was changed from "to prevent threats to human health and the environment" to "to protect human health and the environment;" and (2) an incorrect reference to §265.178 was deleted.

V.C Submission of Interim Status Closure and Post-Closure Plans (notification of closure)

§§265.112(d), 265.118(e)

V.C.1 Synopsis of Previous Regulation

Sections 265.112(c) and 265.118(c) previously required owners or operators to submit their closure and post-closure plans 180 days prior to final closure. Sections 265.112(d) and 265.118(d) required the Regional Administrator to approve, modify, or disapprove the closure plan or post-closure plan within 90 days of receipt.

V.C.2 Summary of Proposed Rule

The Agency proposed in new §265.112(d)(1) to clarify and set shorter deadlines for advance notification of closure and submission of closure plans. For interim status facilities without approved closure plans, the deadlines for notification of closure and submitting the entire closure plans were proposed as follows:

(1) Remain at 180 days for final closure of facilities with disposal units (surface impoundments, waste piles, land treatment units, landfill units) that have not already been partially closed;

(2) Set at 180 days for partial closure of disposal units;

(3) Change from 180 days to 45 days for final closure of facilities with no land disposal units, (i.e. only tanks, containers, or incinerator units).

For interim status facilities with previously approved closure plans, notification deadlines were proposed as follows (closure plans do not need to be resubmitted unless being modified):

(1) Change from 180 days to 60 days for final closure of facilities with disposal units that have not already been partially closed;

(2) Change from 180 days to 60 days for partial closure of disposal units;

(3) Change from 180 days to 45 days for final closure of facilities with no land disposal units.

In new §265.118(e), the Agency proposed to retain the 180-day deadline for submitting a post-closure plan. However, the post-closure plan must now be submitted 180-days prior to closure of the first disposal unit, rather than prior to final closure of the entire facility.

V.C.3 Rationale for Proposed Rule

The Agency is committed to ensuring that partial closures of hazardous waste management facilities are conducted in a manner that will prevent future threats to human health and the environment. The Agency is particularly concerned that if closure plans are not reviewed and approved prior to partial closures of disposal units (surface impoundment, waste pile, landfill and land treatment units), partial closure activities may not be adequate. Moreover, in many situations it may be difficult or environmentally unsafe to correct previous improper partial closures to ensure they are in accordance with a subsequently approved plan.

V.C.4 Comments and Responses

V.C.4.1 Plan Submission Deadline for Non-Disposal Units

- The 180-day minimum for submission of the plan should be retained, since it is necessary for closures of tanks, incinerators, and container storage, where soil contamination and other problems are definite possibilities.

The Agency believes that the Regional Administrator will be able to act more quickly on closure plans for most tanks, incinerators, and container storage units, which are less complex and less likely to have extensive contamination problems. The Agency also recognizes that for some storage facilities it may be difficult to predict closure 180 days in advance. For these reasons, the Agency is reducing the notification period to 45 days for facilities with only these non-disposal units.

V.C.4.2 Uniform vs. Variable Deadlines

- There should be a uniform 90-day deadline, with some flexibility of the actual termination date, for submittal of closure plans for all facilities regardless of the types of hazardous waste management units they operate.
- The time of closure of any hazardous waste management unit is subject to numerous variables--industrial and business climates, alternative treatment, technology, weather, and other valid factors. A 90-day prior notification, with some actual termination date flexibility, is more realistic and should provide

the agency with adequate time to prepare for and inspect the unit.

- It is unlikely that the Regional Administrator will be able to act on all closure plans so as not to delay closure of interim status facilities. This could result in facilities which can no longer receive waste, because interim status has terminated, and cannot close because the closure plan has not been approved by EPA. We suggest that time for submittal of closure plans be shortened to 90 days, and that plans which have not been approved, modified. or denied within that time period be deemed approved.

The Agency is requiring different deadlines for submittal of closure plans for different types of units, because some units have more complicated closure procedures than others. Furthermore, new provisions added in §265.112(e) now allow an owner or operator to remove hazardous waste and decontaminate or dismantle equipment at any time before or after notification of partial or final closure. These activities, however, must be in accordance with the approved closure plan, even if it is approved at a later date. Forty-five days in many cases will be ample time for the Regional Administrator to complete the approval process for non-disposal facilities. Disposal facility plans are generally more complex, however, so the Regional Administrator's response time will be longer (180 days). The Agency therefore has concluded that varying the deadlines is better than a uniform 90-day deadline with a flexible termination date.

The Agency disagrees with one commenter's suggestion that a plan be automatically approved within 90 days unless the Regional Administrator has formally disapproved the plan. The major obstacle to timely actions on closure plans has been their inadequacy. The Agency will not allow any closure plan to become effective before verifying that it properly addresses facility conditions.

V.C.4.3 Closure Plan for Units, Not Facility

- The proposed rule requires submission of a closure plan for the entire facility prior to the first partial closure. This will be impractical in many cases. The Agency should allow owners and operators the option of submitting a closure plan limited to the units to be closed.

The Agency disagrees that owners or operators should be allowed to submit closure plans addressing only the units to be closed. All owners or operators of interim status facilities were required to prepare complete closure plans for their entire facilities by May 19, 1981. Today's regulation simply requires owners or operators to submit the already prepared closure plans prior to partial closure of the first disposal unit, or prior to final closure of the facility if there are no disposal units. This requirement should pose no additional burden to owners or operators otherwise in compliance with Subpart G requirements.

The Agency recognizes, however, that requiring the entire closure plan to be approved prior to the first partial closure sometimes may pose a burden on the Agency to review the entire plan within the specified deadlines. In some circumstances, approving the entire plan may not be necessary for ensuring protection of human health and the environment and, in fact, could delay partial closure. For example, an interim status facility with a surface impoundment and storage tanks may intend to close only the tanks while continuing to operate the impoundment. If ground-water monitoring data is not adequate to evaluate the impoundment closure plan, the review process for the entire closure plan will not be completed within the allotted time. In such a circumstance, the Regional Administrator should use his discretion and approve that portion of the plan applicable to the partial closure. This will minimize the burden on the Agency and owners or operators while retaining the incentive to perform partial closures.

V.C.4.4 Plan Review Period is Too Short

- The 90-day limit allowed for review, public participation, and approval/denial/modification of the plan is insufficient, and should be expanded to 120 days.

The Agency considered whether an additional 30 days would enhance significantly the time available for plan review, public participation, and approval. The Agency concluded that plan review can be conducted simultaneously with the public notice and review process, which is estimated to require 30 days from submission of the plan to the public hearing. For plans involving surface impoundments, waste piles, land treatment, or landfill units, the Regional Administrator will have 60 additional days to consider the plan. The Agency does not want to lengthen this process, since speedy closure of units and facilities will reduce the likelihood of damages to human health or the environment. However, if the Regional Administrator does not believe 90 days is adequate, the rule allows the option of approving only the relevant part of the plan within that time period.

V.C.5 Final Rule

After careful analysis of the comments received relevant to the submission of interim status closure and post-closure plans, the Agency has adopted the proposed rule with the following minor wording change. The caption has been changed to "notification of partial closure and final closure" from "notification of closure."

V.D Written Statement by Regional Administrator of Reasons for Refusing to Approve or Reasons for Modifying Closure or Post-Closure Plan

§§265.112(d)(4) and 265.118(f)

V.D.1 Synopsis of Previous Regulation

Sections 265.112(d) and 265.118(d) required the Regional Administrator to approve, modify, or disapprove the closure plan and post-closure plan within 90 days of receipt from the owner or operator. If the Regional Administrator did not approve a plan, the owner or operator was required to modify the plan or submit a new plan within 60 days. If the Regional Administrator modified a plan, this modified plan then became the approved plan.

Section 265.118 also allowed the Regional Administrator (in response to a request or at his own discretion) to hold a public hearing to clarify issues concerning a closure or post-closure plan.

V.D.2 Summary of Proposed Rule

The Agency proposed in §§265.112(d)(4) and 265.118(f) to add the requirement that the Regional Administrator provide a detailed written statement of reasons for refusing to approve or for modifying a closure or post-closure plan within 90 days of receiving the plan. In addition, the Agency proposed a minor technical correction to amend §265.118(f), which concerns post-closure plans, to match the parallel requirement in §265.112(d)(4) concerning closure plans. This changes adds procedures to §265.118(f) for the Regional Administrator to hold a public hearing concerning the post-closure plan.

V.D.3 Rationale for Proposed Rule

Petitioners in the ACCI litigation argued that the previous procedure allowed the Regional Administrator undue discretion to disapprove or modify closure or post-closure plans without sufficient explanation of the reasons underlying the disapproval or modification. A written statement would assist the owner or operator in modifying the plan or in developing a new plan.

V.D.4 Comments and Responses

- The requirement could encourage owners or operators to submit deficient closure plans since they could rely on the government agency to "straighten out" the closure plan.

The Agency does not believe that requiring the Regional Administrator to provide a written statement of reasons for not approving the closure plan, or that allowing the Regional Administrator to modify the plan, will necessarily lead owners or operators deliberately to submit inadequate plans. Numerous commenters on other sections of the proposed rules have emphasized the interest of owners and operators in speedy approval of the plan, which would be enhanced by their submission of careful and detailed plans that the Regional Administrator does not need to "straighten out."

V.D.5 Final Rule

The Agency adopted the proposed rule with the following minor technical changes. In §265.112(d)(4) the list of authorities was modified to read "§§265.111 through 265.115" in order to include a reference to §265.112 and "§§265.90 *et seq*." was added. In §265.118(f) there were three changes: (1) the requirement was added that "the Regional Administrator must ensure that the approved post-closure plan is consistent with §§265.117 through 265.120;" (2) a reference to criteria in §265.118(g) was dropped; and (3) special requirements affecting owners and operators before November 19, 1981, were deleted.

VI. PERMITTING STANDARDS (PART 270)

VI.A Contents of Part B: General Requirements
§270.14(b)(14)

VI.A.1 Synopsis of Previous Rule

Section 270.14(b)(14) specified that for existing facilities the Part B permit application must include documentation that a notice had been placed in the deed or appropriate alternate instrument as required by §264.120. The deed notice required by §264.120 informed potential purchasers of the property (1) that the land had been used to manage hazardous wastes, (2) that its use was restricted, and (3) that a survey plat and record of wastes disposed of had been filed with the local land authority.

VI.A.2 Summary of Proposed Rule

The Agency proposed to amend §270.14(b)(14) to specify that the Part B permit application include the following:

> For hazardous waste disposal management units that have been closed, documentation that notices required under §264.119 have been filed. (emphasis added)

VI.A.3 Rationale for Proposed Rule

The Agency recognized that many Part B applications will be filed prior to closure of a hazardous waste disposal unit at the facility. Because the deed notice is filed only after a unit has been closed, it will not be possible for the owners or operators of many facilities to include documentation in their permit application indicating that the notices have been filed. Therefore, the Agency proposed to amend §270.14(b)(14) to require documentation to be included in the Part B application only for facilities which had already closed a hazardous waste disposal unit prior to the submission of the Part B permit application. In addition, because the notice in the deed requirement is now included in §264.119, the reference in §270.14(b)(14) to §264.120 has also been amended.

VI.A.4 Comments and Responses

No comments were received concerning the proposed amendment.

VI.A.5 Final Rule

The Agency deleted the word "management" from "hazardous waste disposal management units," and otherwise adopted the rule as proposed.

VI.B Contents of Part B: General Requirements §§270.14(b)(15) and (16)

VI.B.1 Synopsis of Previous Rule

Section 270.14(b)(15) and (16) specified that the Part B permit application must include a copy of the most recent closure and post-closure cost estimates and documentation demonstrating compliance with closure and post-closure care financial assurance requirements in accordance with the requirements of §§264.143 and 264.145.

VI.B.2 Summary of Proposed Rule

The Agency proposed to amend §§270.14(b)(15) and (16) to specify that the cost estimates and documentation demonstrating compliance with the financial assurance requirements either must be included with the submission of the Part B application or provided at least 60 days prior to the initial receipt of hazardous wastes, whichever is later.

VI.B.3 Rationale for Proposed Rule

Sections 264.143 and 264.145 specified that demonstration of financial assurance must be made at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. Section 270.14 required that documentation be submitted with the Part B application. Because the Part B application may be submitted well in advance of the initial receipt of hazardous waste, the Agency recognized that this would impose unnecessary costs of maintaining a financial mechanism on the owner or operator. Therefore, the Agency proposed to revise §270.14 to specify that the most recent cost estimates and demonstration of financial assurance may be submitted either with the Part B application or at least 60 days prior to the initial receipt of hazardous wastes, whichever is later.

VI.B.4 Comments and Responses

No comments were received concerning the proposed amendment.

VI.B.5 Final Rule

The Agency corrected a typographical error and adopted the rule as proposed.

VI.C Minor Modifications of Permits
§270.42(d)

VI.C.1 Synopsis of Previous Regulation

Section 270.42(d) provided that a change in ownership or operational control of a facility may be considered a minor permit modification if the Regional Administrator or State Director ("the Director") determines that two conditions are met:

(1) No other change is necessary in the permit, and

(2) A written agreement has been submitted containing a "specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees."

VI.C.2 Summary of Proposed Rule

The proposed rule added a third condition before a change in ownership or operational control of a facility could be considered a minor permit modification. The added condition was that a "demonstration of compliance with the requirements of §270.72(d) has been submitted to the Director." Section 270.72(d), which concerns changes in ownership during interim status, required compliance by the old owner or operator with the requirements of Subpart H until the new owner or operator has established financial assurance.

VI.C.3 Rationale for Proposed Rule

The Agency wished to ensure that facilities are transferred to financially viable firms. The intent of the proposed rule was to ensure that the new owner demonstrated compliance with the Subpart H regulations.

VI.C.4 Comments and Responses

One commenter supported allowing a transfer of ownership or control to be considered a minor permit modification. One commenter pointed out an ambiguity in the proposed rule that is being corrected in the final rule. These comments are addressed in this section. In addition, a number of comments addressed other aspects of transfer of responsibility for financial assurance. Those comments are addressed in connection with §270.72 in Section VI.D of this document.

VI.C.4.1 Transfer of Ownership

- Transfer of ownership or control should be considered a minor permit modification if the requirements in the proposed rule are satisfied.

The Agency agrees that a change in ownership should be subject to the requirements for a minor permit modification. A change of ownership or operator will not affect the permitted facility itself or the activities occurring at the facility. However, a change of ownership or operator could affect financial assurance, and a condition of the modification is that financial assurance must be established by the new owner or operator within a reasonable time.

VI.C.4.2 Application to Interim Status Facilities

- The definition of "permit" under §270.2 excludes interim status facilities. As a result, the reference in §270.42 to §270.72 is confusing because §270.72 refers to changes during interim status and is not necessarily applicable to changes of ownership of permitted facilities.

In order to eliminate confusion resulting from the reference in §270.42 to §270.72(d), the Agency has revised §270.42 in the final rule to include explicitly the deadlines listed in §270.72 while dropping the reference to §270.72(d). The Agency intends that the requirements in §270.42 be applied to both permitted and interim status facilities. The old owner or operator must comply with Subpart H until the new owner or operator demonstrates compliance. The new owner or operator must demonstrate compliance with Subpart H within six months of the date of the change in the ownership or operational control of the facility.

VI.C.5 Final Rule

Based on the comments received in connection with both the proposed §270.42 and the proposed §270.72, the final rule retains the requirement that the new owner or operator submit a revised permit application no later than 90 days prior to the scheduled change in ownership or operational control. The old owner or operator must continue to comply with the requirements of 40 CFR Subpart H until the new owner or operator has demonstrated that he is complying with the financial assurance requirements. The final rule revised the language in §270.42

to include explicitly the deadline in §270.72 requiring the new owner or operator to demonstrate compliance with Subpart H requirements within six months of the date of the change in the ownership or operational control of the facility but to delete the reference to §270.72. Upon a demonstration by the new owner or operator of compliance with Subpart H, the Director (or Regional Administrator) will notify the old owner or operator in writing that he no longer needs to comply with Subpart H as of the date of demonstration.

VI.D Changes During Interim Status
§270.72(d)

VI.D.1 Synopsis of Previous Regulation

The previous rule stated that when there was a transfer of ownership or operational control, the old owner or operator was responsible for complying with the Subpart H regulations until the new owner or operator demonstrated compliance with the financial responsibility requirements. However, no deadline was imposed on the new owner or operator for complying with the Subpart H requirements.

VI.D.2 Summary of Proposed Rule

The proposed rule required the new owner or operator of a facility to demonstrate compliance with the Subpart H regulations within three months of the transfer of ownership. (The preamble to the proposed regulations inadvertently provided that a new owner would be required to demonstrate financial responsibility within six months of the transfer of ownership).

VI.D.3 Rationale for Proposed Rule

The Agency wishes to ensure that facilities are transferred to financially viable firms. The previous owner or operator remains responsible for providing financial assurance for the facility until the new owner demonstrates compliance with the Subpart H regulations. However, the Agency desires a relatively speedy transfer of responsibility for financial assurance to the new owner or operator to ensure that conflicts over the responsibility for providing financial assurance do not affect the degree of assurance.

VI.D.4 Comments and Responses

VI.D.4.1 Recommendations for Other Time Periods/Difficulty in Obtaining Insurance

- Because of the difficulty of obtaining necessary insurance, six months may be too brief a period to demonstrate financial responsibility.

- The proposed section would delay the sale of plants. The Agency should instead allow changes in ownership or operational control to proceed as planned by the parties, but hold the transferor liable for compliance with the RCRA substantive requirements if the Agency determines within 90 days of notification that the transferee cannot comply with the requirements.

- Since difficulties in securing necessary insurance may preclude the new owner from demonstrating financial responsibility within three months, and since the old owner remains liable, the three month limit is unreasonable.

The final rule allows six months for the new owner or operator to demonstrate compliance with Subpart H, which the Agency believes is a reasonable period. The date of the transfer of ownership starts the six-month period, but the potential purchaser can begin to arrange for financial assurance some time before the actual transfer of ownership. The Agency agrees that insurance may be difficult to obtain quickly. However, insurance is not the only mechanism that may be used to provide assurance of financial responsibility for closure or post-closure care. A potential owner or operator could set up any of the other authorized financial assurance mechanisms to be effective on the day ownership transfers, contingent on the transfer of ownership. Alternatively, transfer of ownership could be made contingent on obtaining financial assurance. The Agency also is addressing the issue of the availability of insurance for liability coverage in a separate proceeding (see 50 FR 33902, August 21, 1985). For these reasons, the Agency does not believe that sales will be delayed unnecessarily as a result of this requirement. It is merely imposing a time limit on the new owner or operator during which he must demonstrate financial responsibility.

VI.D.4.2 Assumption of Responsibility Should Take Place Quickly

- Six months is an unreasonably long period of time to wait to demonstrate financial responsibility. The maximum time period should instead be set at two months. In addition, a statement should be provided within one week of the sale by the seller concerning the buyer's assumption of existing violations, ground-water contamination, managerial competency, and the financial assurance obligations of both seller and buyer.

The Agency considered adopting the three-month time period proposed in §270.72(d). However, six months was adopted for the final rule because it was more reasonable for new owners or operators who might be unfamiliar with the steps necessary to satisfy the Subpart H requirements. The previous owner or operator remains responsible for providing assurances of financial responsibility until the new owner satisfies the requirements of Subpart H. As discussed above, the six-month period should be sufficient to allow the new owner to obtain financial assurance, without unduly delaying the shift of responsibility.

The specific date when the responsibility shifts between the old and the new owner or operator is a matter of their private bargaining. The Agency believes, however, that providing a statement on assumption of existing violations, as suggested by the commenter, is unnecessary because the old owner remains liable until the new owner is able to demonstrate financial responsibility.

VI.D.4.3 Responsibility of Old Owner

- The proposed rule does not specify whether the old owner must maintain financial assurance for the facility until the new owner meets Subpart H requirements. EPA should treat interim status and permitted facilities the same as far as providing financial assurance is concerned.

The final rule states explicitly that the old owner remains responsible until the new owner successfully demonstrates financial responsibility. If the new owner fails to meet the six-month deadline, then the new owner is in violation of the regulations, but the old owner continues to be financially responsible. The Agency agrees that interim status and permitted facilities should be treated equally, therefore the final rule amends §270.42(d) to remove the reference to §270.70(d) and instead specifies explicitly the obligation of the seller under a transfer of ownership.

VI.D.5 Final Rule

In response to the comments received concerning this section, EPA revised both §§270.42 and 270.72 of the final rule to clarify its intention that a six-month deadline for demonstrating financial responsibility is established by both rules, for both permitted and interim status facilities. The Agency also amended §270.42(d) in the final rule to specify that when a transfer of ownership or operational control of a facility occurs, the old owner or operator must continue to comply with the financial assurance requirements of Subpart H until the new owner or operator has demonstrated that he is complying with those requirements. This requirement is retained in §270.72.

VII. EFFECTIVE DATES

Section 3010(b) of RCRA provides that EPA's hazardous waste regulations and revisions thereto take effect six months after promulgation. The purpose of this requirement is to allow sufficient preparation time for the regulated community to comply with major new regulatory requirements. Section 553(d) of the Administrative Procedure Act prohibits "publication or service of a substantive rule...less than 30 days before its effective date" except for certain exceptions, including cause. For the amendment to §270.14(b)(14) promulgated today, however, the Agency believes that an effective date six months or 30 days after promulgation would cause substantial and unnecessary disruption in the implementation of the regulations and would be contrary to the interest of the regulated community and the public.

Today's amendment to §270.14(b)(14) requires that an owner or operator seeking a permit submit documentation that notices required under §264.119 have been filed only for hazardous waste disposal units that have been closed. The previous regulations required that documentation of such notices be submitted for the entire facility, whether or not units have been closed at the time the permit application is submitted.

The Agency believes it makes little sense that the intended relief from this requirement be delayed for six months. Consequently, the Agency is setting the date of publication as the effective date for the amendment to §270.14(b)(14) promulgated in this rulemaking action.

In accordance with the requirement in §3010(b) of RCRA, the balance of the regulations become effective 180 days after the date of publication in the Federal Register.

VIII. REFERENCES

1. Report: Conference Report, Hazardous and Solid Waste Amendments of 1984, Oct. 3, 1984.
By: U.S. House of Representatives.

2. Report: Survey of Compliance with Closure and Post-Closure Care Plans and Cost Estimate Regulations, (Draft Report), June 10, 1983.
By: ICF Incorporated.

3. Document: Inspection, Enforcement, and Permitting Activities at New Jersey and Tennessee Hazardous Waste Facilities, GAO/RCED-84-7, June 22, 1984, 42 pages.
Report to the Chairman, Subcommittee on Commerce, Transportation and Tourism; Committee on Energy and Commerce; House of Representatives.
By: The U.S. General Accounting Office.

4. Document: Interim Report on Inspection, Enforcement, and Permitting Activities at Hazardous Waste Facilities, GAO/TCED-83-241, September 21, 1983, 19 pages.
Report to the Chairman, Subcommittee on Commerce, Transportation and Tourism; Committee on Energy and Commerce; House of Representatives.
By: The U.S. General Accounting Office.

5. Report: Average and Maximum Engineering Cost Estimates for Closure, (Draft Final Report), August 1983.
By: Pope-Reid Associates, Inc., contract #68-01-6621, subcontract #EPA 30-10.

6. Memo: Post-Closure Notices in Deed, December 6, 1985, 6 pages.
To: Carole Ansheles, EPA/OSW
From: Margaret Bracken, David Salvesen, and Craig Dean, ICF Incorporated.

7. Memo/ Report: Revised first party and third party costs for Part 264 landfill closure and post-closure, July 31, 1985, 99 pages.
To: Jim Craig, EPA/OSW
From: Shirley J. Smith, Pope-Reid Associates, Inc.

8. Memo/ Report: Revised first party and third party closure costs for all the hazardous waste treatment, storage, and disposal technologies, September 13, 1985, 39 pages.
To: Jim Craig, EPA/OSW
From: Shirley J. Smith, Pope-Reid Associates, Inc.

9. Memo: Comparison of Costs of a First vs. Third-Party Cost Estimating Requirement to Owners or Operators Using the Financial Test. November 4, 1985, 4 pages.
To: Carole Ansheles, EPA/OSW
From: John Bohnen, Liz Wallace, Robin Rodensky, ICF Incorporated.